THIS APPLIANCE IS MANUFACTURED BY:

SAMSUNG

AH68-01854K

SAMSUNG

Digital Surround AV Receiver System

HT-AS710

AV-R710

Instruction Manual

Safety Warnings

CAUTION
RISK OF ELECTRIC SHOCK.
DO NOT OPEN

CAUTION:
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE REAR COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol indicates that dangerous voltage which can cause electric shock is present inside this unit.

This symbol alerts you to important operating and maintenance instructions accompanying the unit.

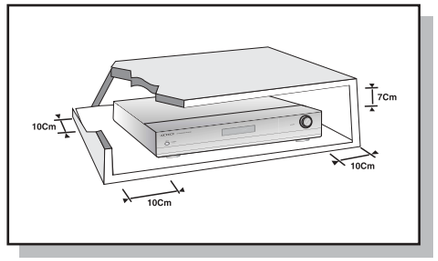
WARNING: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

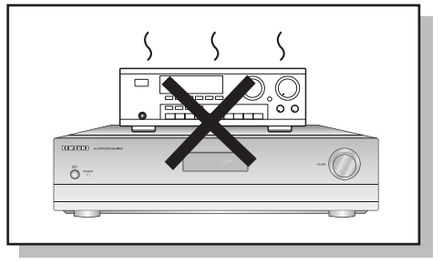
CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

— EUROPE ONLY —

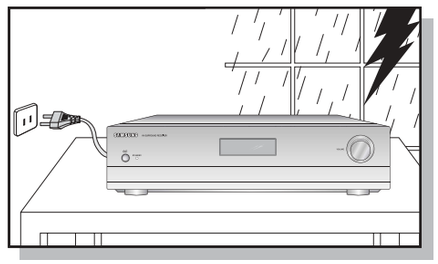
This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life.
To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.
Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.
Business users should contact their supplier and check the terms and conditions of the purchase contract.
This product should not be mixed with other commercial wastes for disposal.

Precautions

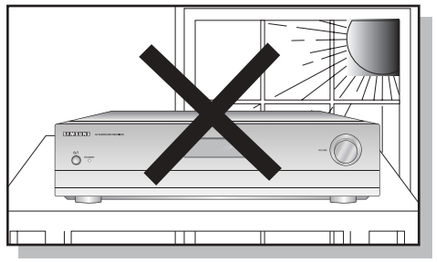




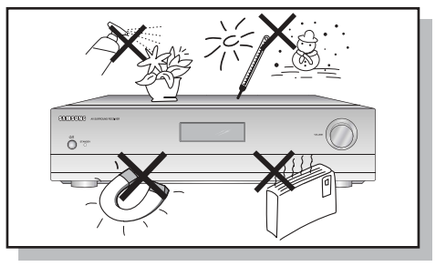
Ensure that the AC power supply in your house complies with the identification sticker located on the back of your player. Install your player horizontally, on a suitable base (furniture), with enough space around it for ventilation (7.5~10cm). Make sure the ventilation slots are not covered. Do not stack anything on top of the amplifier. In order to disconnect the player completely from the power supply, remove the mains plug from the wall outlet, especially when left unused for a long period of time.



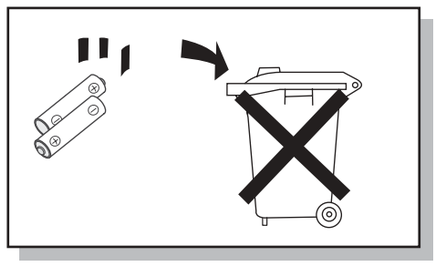
During thunderstorms, disconnect AC main plug from the wall outlet.
Voltage peaks due to lightning could damage the unit.



Do not expose the unit to direct sunlight or other heat sources.
This could lead to overheating and malfunction of the unit.



Protect the player from moisture(i.e. vases) , and excess heat(e.g.fireplace) or equipment creating strong magnetic or electric fields (i.e.speakers...). Disconnect the power cable from the AC supply if the player malfunctions. Your player is not intended for industrial use.
Use of this product is for personal use only.
Condensation may occur if your player or disc have been stored in cold temperatures.
If transporting the player during the winter, wait approximately 2 hours until the unit has reached room temperature before using.



The battery used with this product contain chemicals that are harmful to the environment.
Do not dispose of batteries in the general household trash.

Features

Digital AV Receiver

This product is a pure digital AV receiver that performs digital signal processing to minimise signal distortion and loss.

Dolby Pro Logic IIx

Dolby Pro Logic IIx is a new type of multiple channel audio signal decoding method that improves upon existing Dolby Pro Logic II.

DTS 96/24

DTS is the surround format implementing 5.1 channel multi channel sounds at 96KHz/24bit. In addition, it can reproduce the matrix 6.1 of DTS 96/24 decoder signals.

DOLBY DIGITAL EX

Adds a surround back channel for more spacious sound compared to regular 5.1 channel Dolby Digital.

DTS (Digital Theater Systems)

DTS plays back 5.1 channel sound with less compression than Dolby Digital for richer sound.

DTS-ES

DTS-ES is the surround format which implements 6.1 channel while preserving compatibility with existing DTS Digital Sound formats.

DTS NEO:6

Reproduces digital PCM or analogue stereo over 6.1 channel using a high precision DTS digital matrix.

SFE (Sound Field Effect) Using 24bit Audio Digital Signal Processing

Provides more realistic surround sound with normal stereo audio sources.

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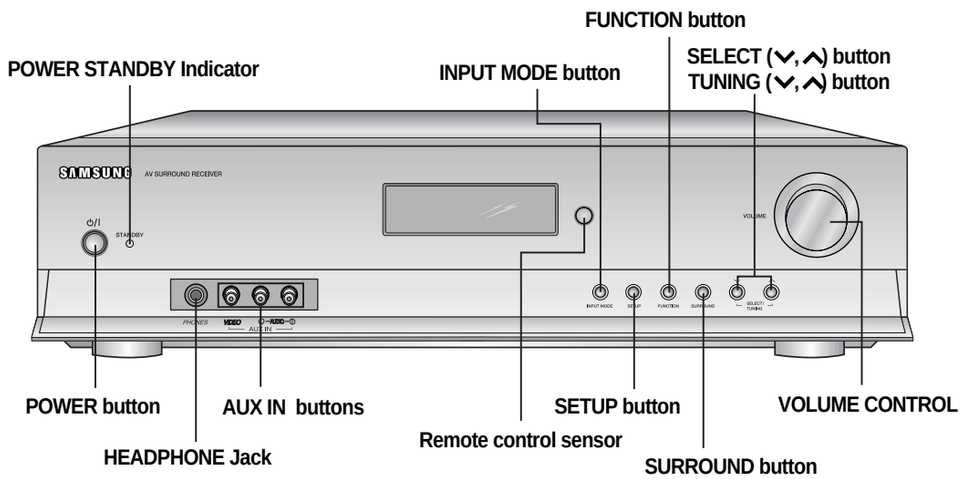
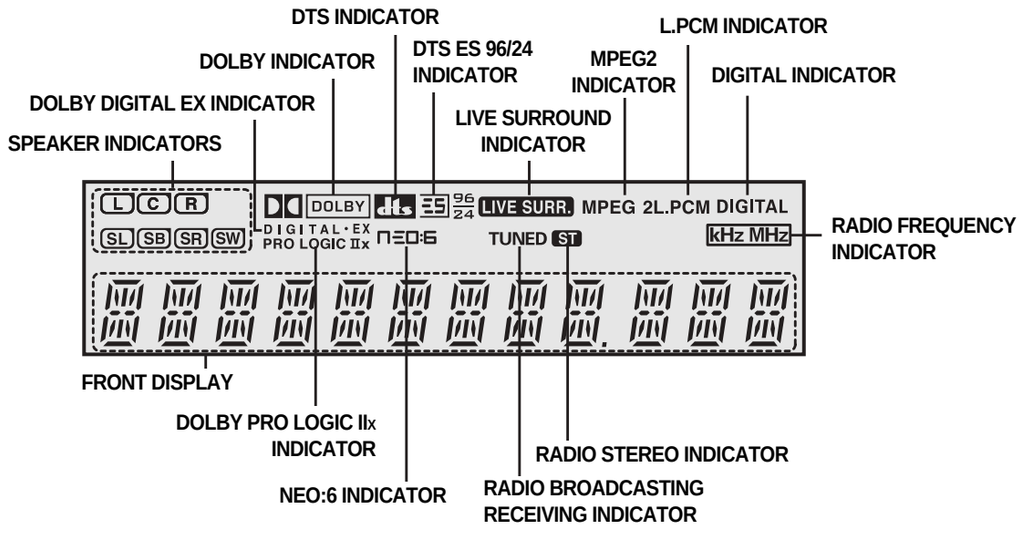
Description

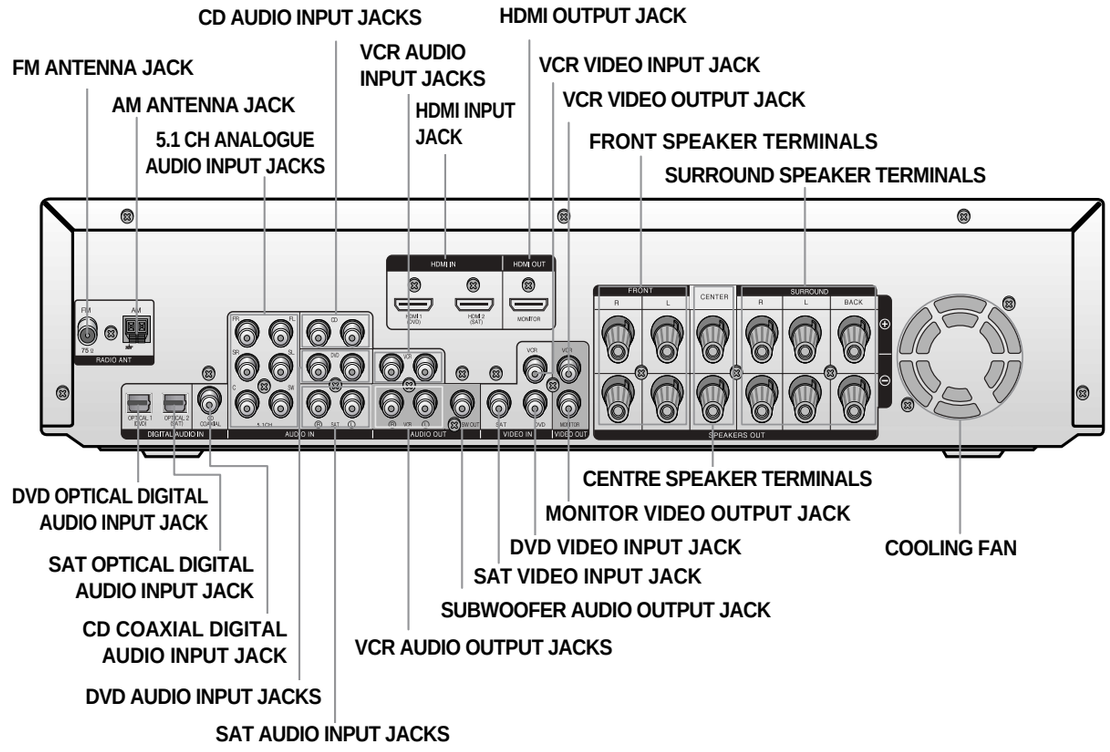
[Front panel]



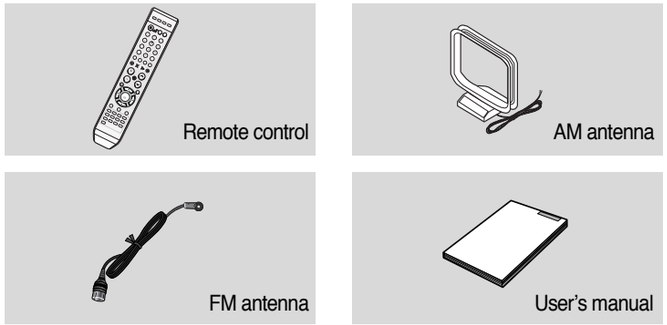
[Display]



[Rear panel]

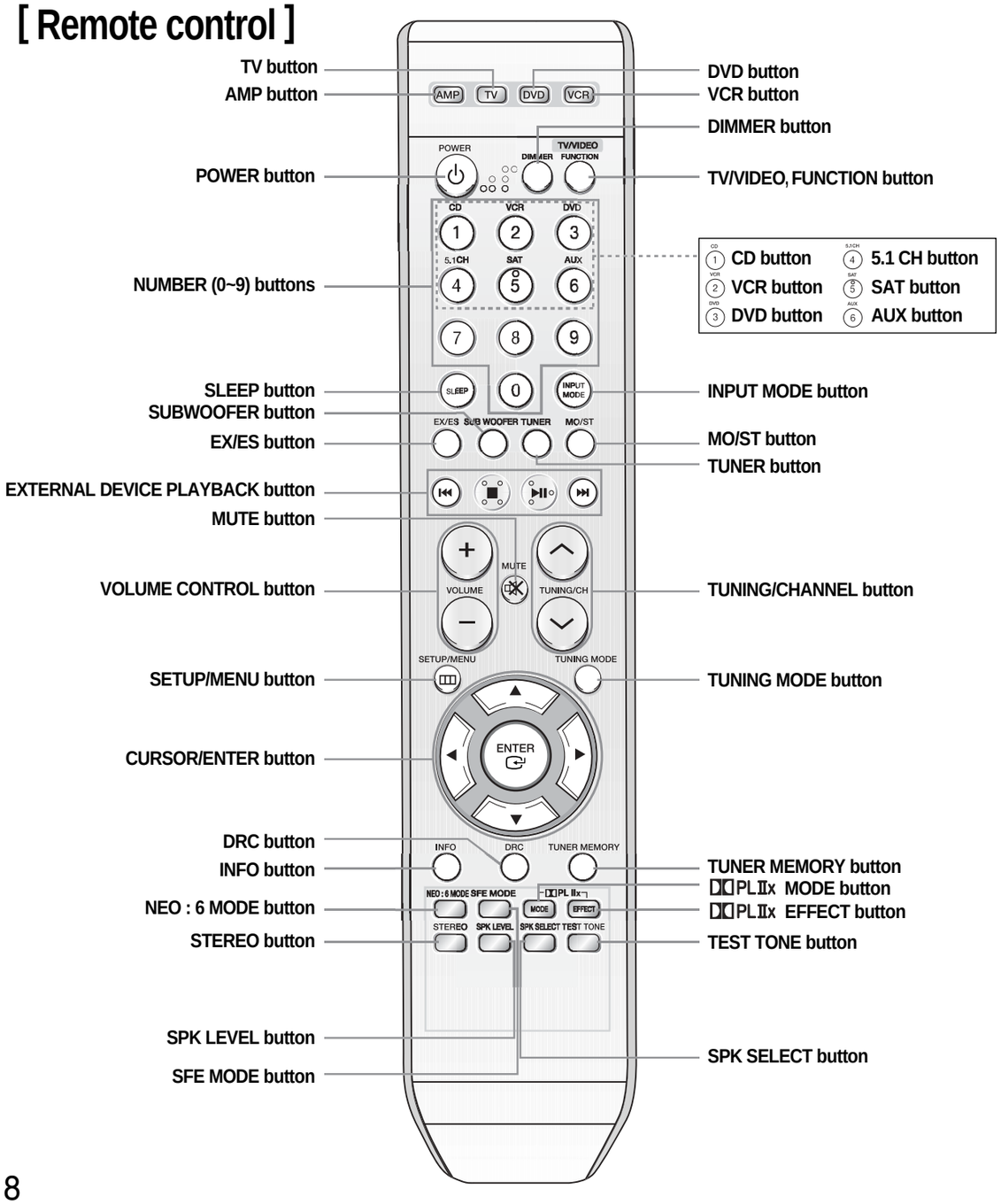


▶▶ Accessories ◀◀



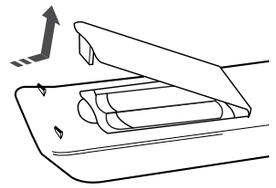
Description (Cont'd)

[Remote control]

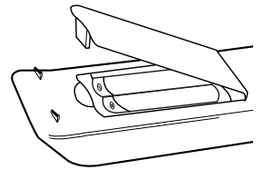


Insert remote control batteries

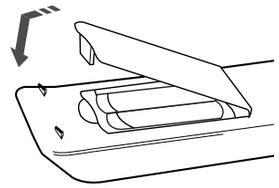
1 Remove the battery cover in the direction of the arrow.



2 Insert two 1.5V AAA batteries, paying attention to the correct polarities (+ and –).



3 Replace the battery cover.



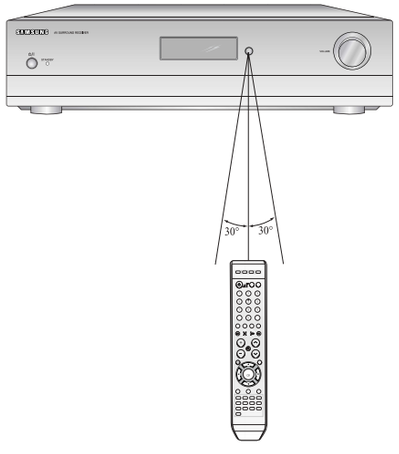
Note

Follow these precautions to avoid leaking or cracking batteries:

- Place batteries in the remote control so they match the polarity:(+) to (+)and (–)to (–).
- Use the correct type of batteries. Batteries that look similar may differ in voltage.
- Always replace both batteries at the same time.
- Do not expose batteries to heat or flame.

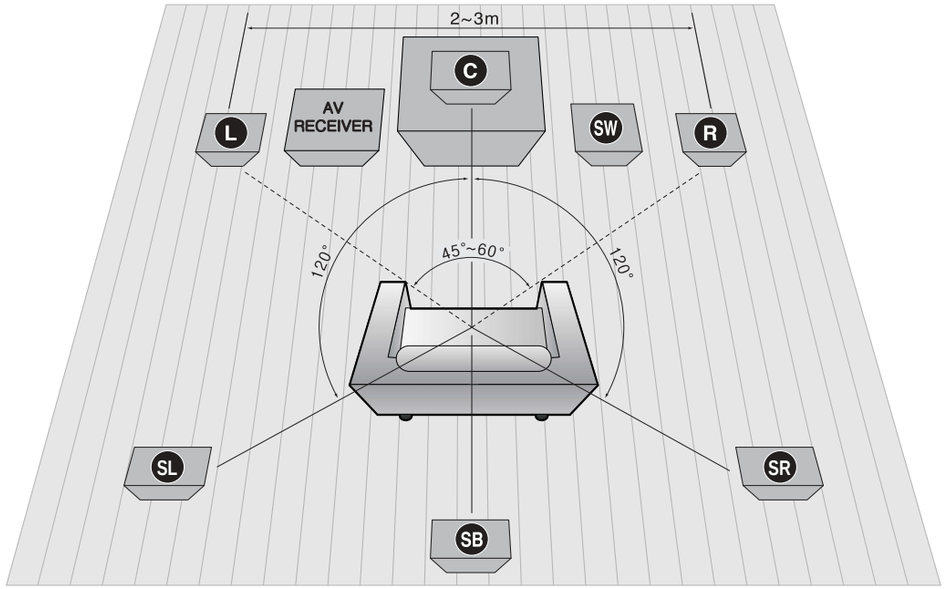
Range of operation of the remote control

The remote control can be used up to approximately 23 feet/7 meters in a straight line. It can also be operated at a horizontal angle of up to 30° from the remote control sensor.



Connecting the speakers

Before moving or installing the product, be sure to turn off the power and disconnect the power cord.



Position of AV Receiver

- Place AV Receiver on a dedicated stand or rack.

Front Speakers L R

- Place these speakers in front of your listening position, facing inwards (about 45°) toward you.
- Place the speakers so that their tweeters will be at the same height as your ears.
- Align the front face of the front speakers with the front face of the centre speaker or place them slightly in front of the centre speaker.

Centre speaker C

- It is best to install it at the same height as the front speakers.
- You can also install it directly over or under the TV.

Subwoofer SW

- The position of the subwoofer is not so critical. Place it anywhere you like.

Surround Speakers SL SR

- Place these speakers behind your listening position.
- If there isn't enough room, place these speakers so they face each other.
- Place them about 60 to 90cm (2 to 3feet) above your ears, facing slightly downward.

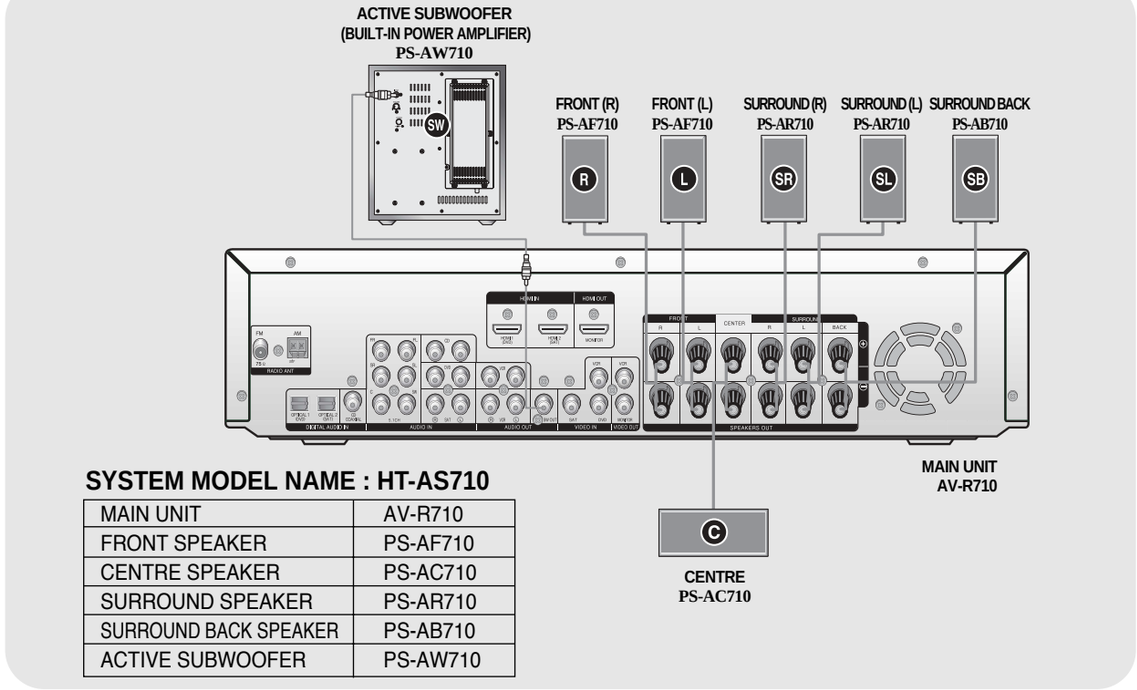
✵ Unlike the front and centre speakers, the surround speakers are used to handle mainly sound effects and sound will not come from them all the time.

Surround Back Speaker SB

- Place it so it faces forward towards the back of the listener.
- Place the surround back speaker about 70 cm to 1 m (2.3~3.3feet) above surround speakers, facing slightly downwards.

Note

- When you attach the speakers to a wall, make sure to fasten them tightly so they do not fall off.



SYSTEM MODEL NAME : HT-AS710

MAIN UNIT	AV-R710
FRONT SPEAKER	PS-AF710
CENTRE SPEAKER	PS-AC710
SURROUND SPEAKER	PS-AR710
SURROUND BACK SPEAKER	PS-AB710
ACTIVE SUBWOOFER	PS-AW710

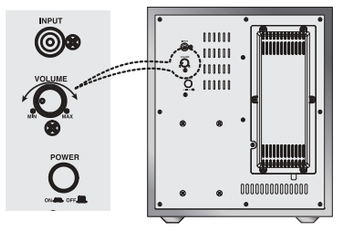
Subwoofer function

Active subwoofer with integrated 150W amplifier provides rich bass sound.

1 Connect the SW OUT terminal of the amplifier (AV-R710) to the INPUT terminal of the subwoofer speaker.

2 Press the POWER button on the rear side of the subwoofer to turn the power on.

3 Using the subwoofer's VOLUME control, you can set the desired bass level (See pages 36-37 "Setting Speaker Level" to set the subwoofer level in the menu).



▶ Connecting Speaker Wire

1 Release the speaker port by turning it counterclockwise.

2 Insert the end of the speaker wire into the speaker port.

3 Fasten the speaker port by turning it clockwise.

Caution

- Keep the subwoofer speaker out of reach of children to prevent them from inserting their hands or objects into the duct (hole) of the subwoofer speaker.

Note

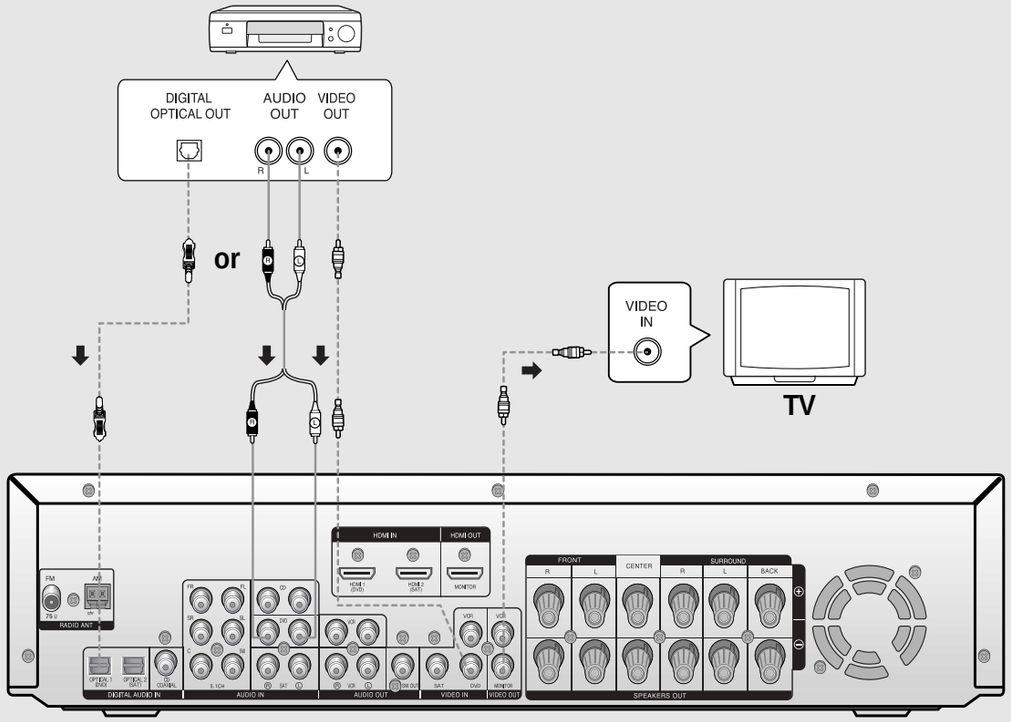
- Never touch speaker terminals while the power is on. Doing so could result in electric shock.
- Make sure the polarities (+ and -) are correct.

Connecting external components

Connecting video component

Before moving or installing the product, be sure to turn off the power and disconnect the power cord.

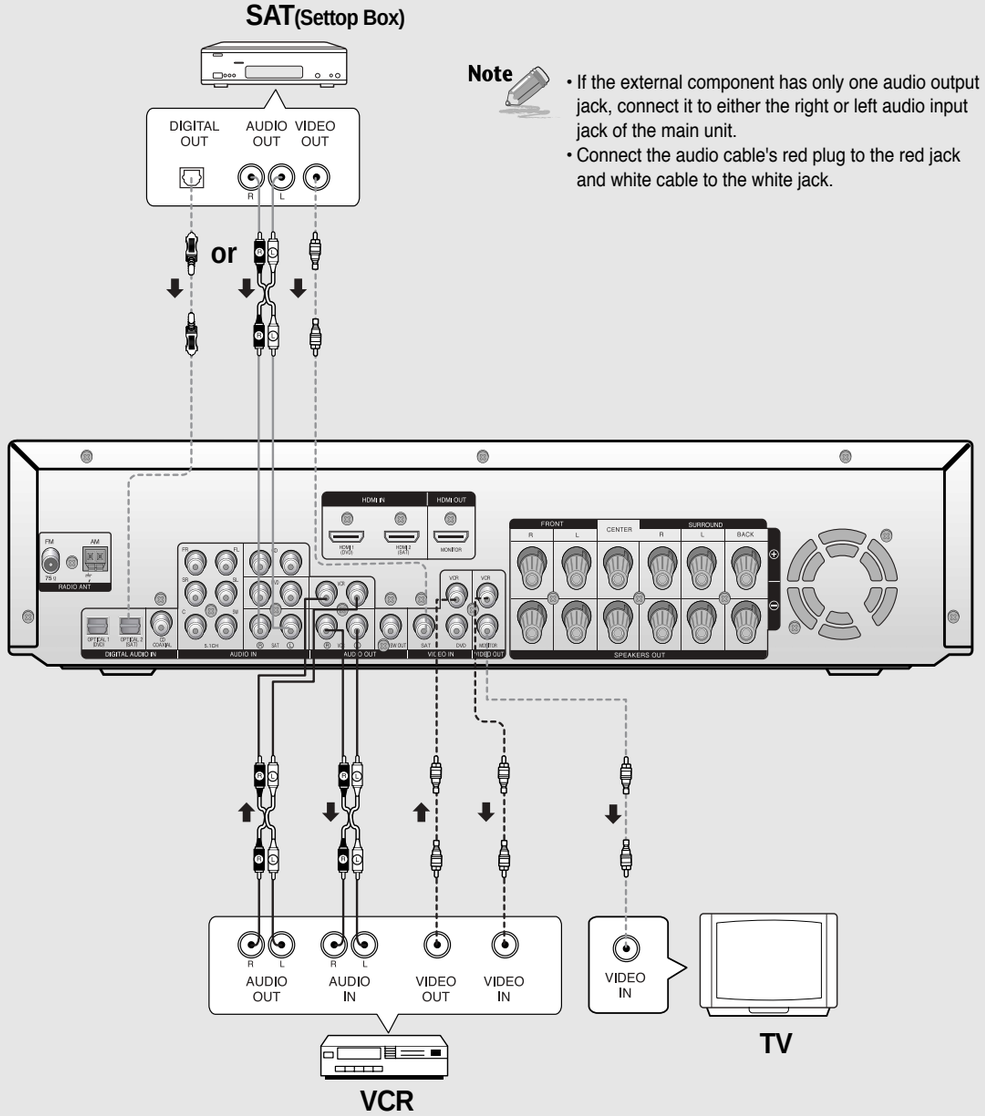
DVD Player



Note

- Disconnect the power plug from the outlet if you will not use this unit for a long period of time.
- Even though the Digital Audio inputs are labelled DVD, SAT and CD, you can connect your DVD/SAT/CD player to either the OPTICAL or COAXIAL digital audio input (as long as it matches the Digital audio output on your player).

SAT(Settop Box)



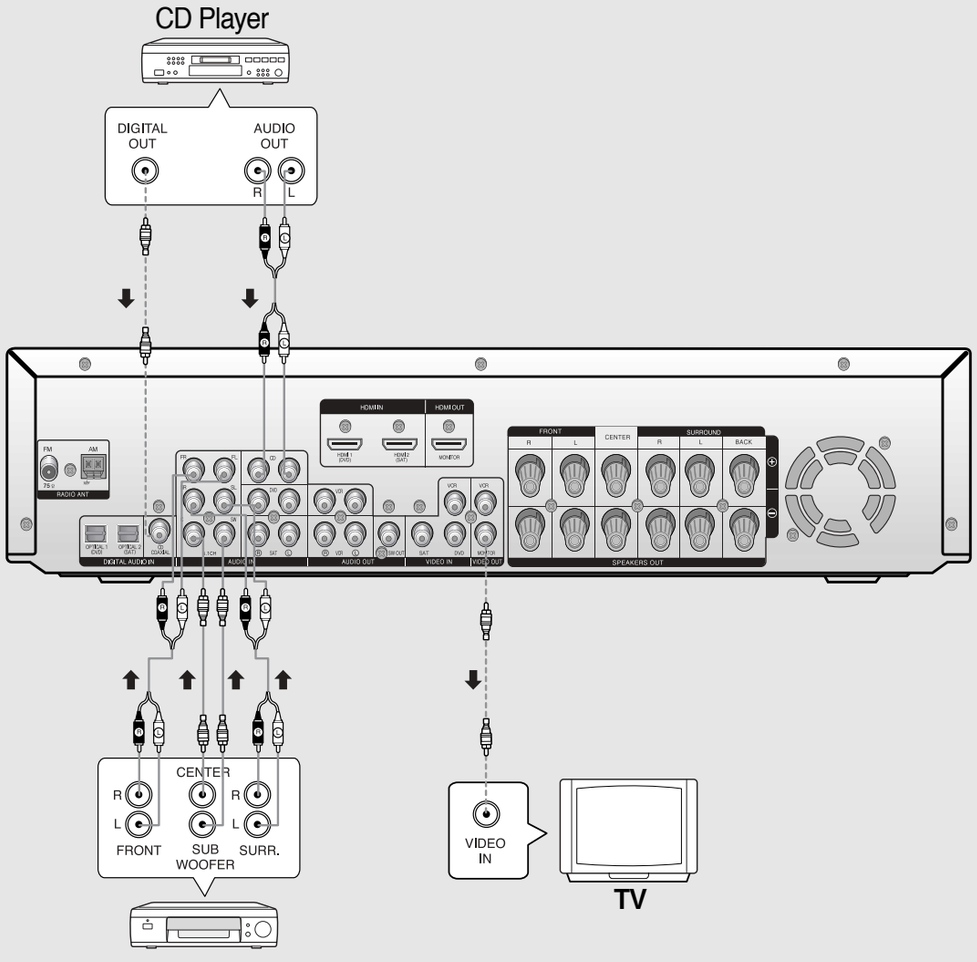
Note

- If the external component has only one audio output jack, connect it to either the right or left audio input jack of the main unit.
- Connect the audio cable's red plug to the red jack and white cable to the white jack.

Connecting external components

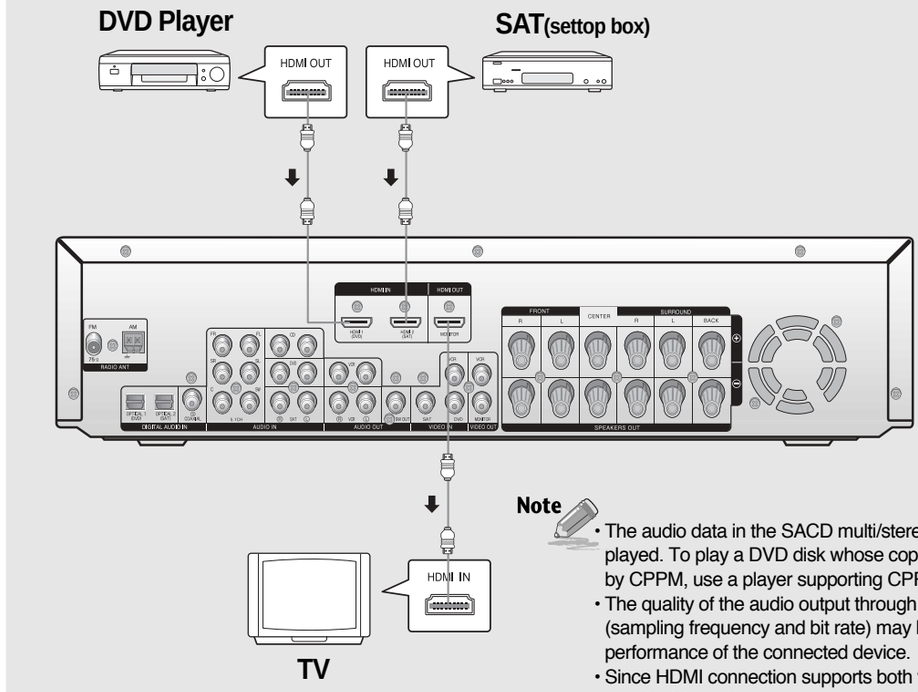
Connecting audio component/5.1 channel

Before moving or installing the product, be sure to turn off the power and disconnect the power cord.



Connecting HDMI Component

By connecting through the HDMI(High-Definition Multimedia Interface) interface, you can exchange digital video and audio data without converting them into analogue.



Note

- The audio data in the SACD multi/stereo area is not played. To play a DVD disk whose copyright is protected by CPPM, use a player supporting CPPM.
- The quality of the audio output through the HDMI jack (sampling frequency and bit rate) may be limited by the performance of the connected device.
- Since HDMI connection supports both video and audio, you don't have to connect an audio cable additionally.

High-bandwidth Digital Content Protection System (HDCP) support

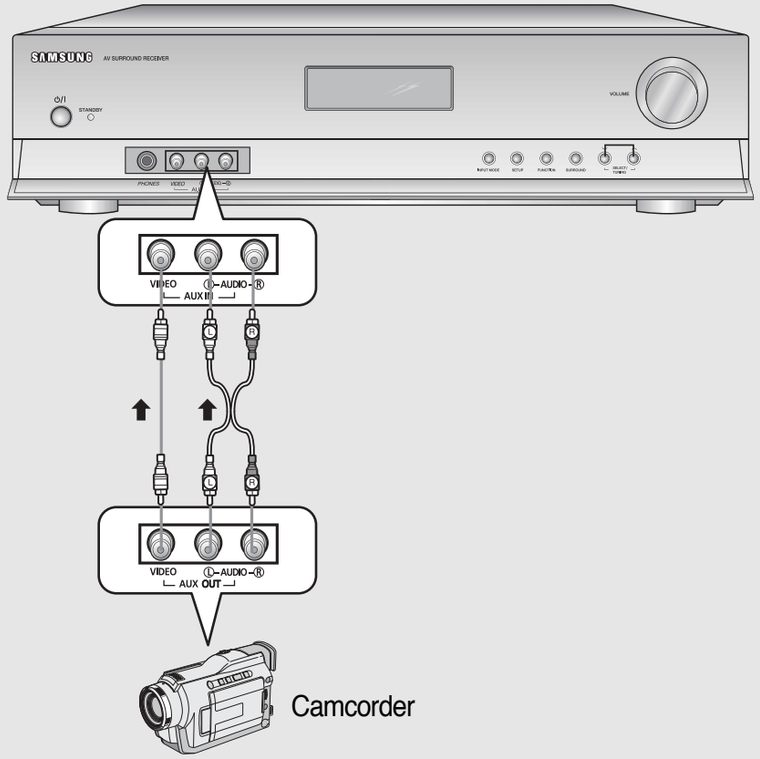
To play digital contents through the HDMI connection, both of the connected external device and TV must support High-bandwidth Digital Content Protection System (HDCP). This product supports HDCP.

COMPATIBILITY WITH A TV SUPPORTING HDMI	
A TV with a HDMI jack.	Video/Audio
A TV with a DVI-D jack (TV supporting HDCP)	Video
A TV with a DVI-D jack (TV not supporting HDCP)	-

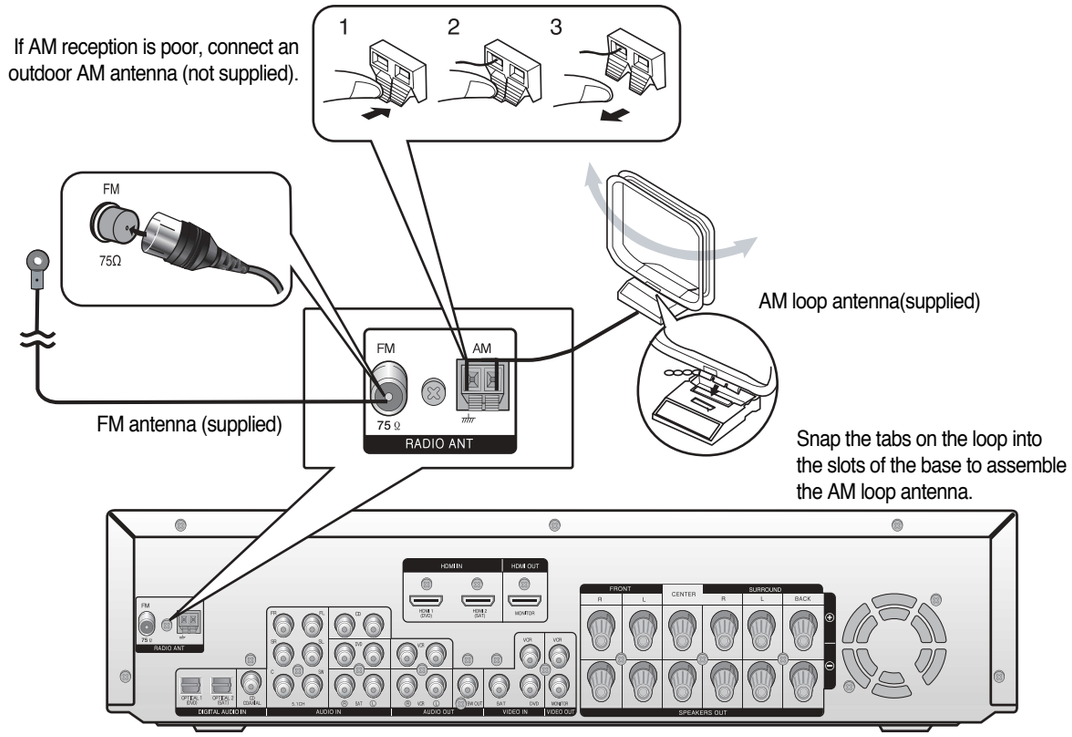
Connecting external components

Connecting AUX component

You can connect an external device (camcorder, game console, mobile equipment, etc.) to this product and use it.



Connecting the FM and AM antennas



FM antenna connection

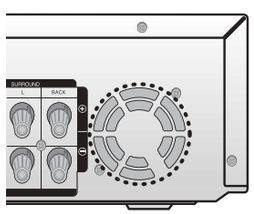
1. Connect the FM antenna supplied to the FM 75Ω COAXIAL terminal as a temporary measure.
2. Slowly move the antenna wire around until you find a location where reception is good, then fasten it to a wall or other rigid surface.

AM antenna connection

1. Connect the AM loop antenna supplied to the AM and terminals.
2. If reception is poor, connect an outdoor single vinyl-covered wire to the AM terminal. (Keep the AM loop antenna connected).

COOLING FAN

The cooling fan dissipates the heat generated inside the unit so that the unit can be operated normally. The cooling fan is activated automatically to supply cool air to the unit.



Please observe the following precautions for your safety.

- Make sure the unit is well-ventilated. If the unit has poor ventilation, the temperature inside may rise and cause damage to it.
- Do not obstruct the cooling fan or ventilation holes. (If the cooling fan or ventilation holes are covered with a newspaper or cloth, heat may build up inside the unit and fire may result.)

Before using the AV receiver

Turning On/Off

REMOTE CONTROL

Press the **POWER** button of the remote control.

• This unit will be turned on or set to Standby mode.

MAIN UNIT

1 Connect the power plug to the outlet.

2 Press the **POWER** button of the main unit.

• This unit will be turned on or set to Standby mode.

Functions of dedicated remote control

You can operate your AMP (this AV receiver), TV, DVD and VCR with this remote control.
See pages 58-61 for more details.

To select a function

REMOTE CONTROL

Method 1

Press the **FUNCTION** button.

• Each time you press this button, **FM → AM → 5. 1 MULTI CH → CD → DVD → SAT → VCR → AUX** will be selected in turn.

Method 2

Press CD, VCR, DVD, 5.1CH, SAT, AUX or TUNER button.

• You can directly select CD, VCR, DVD, 5.1CH, SAT, AUX or TUNER.

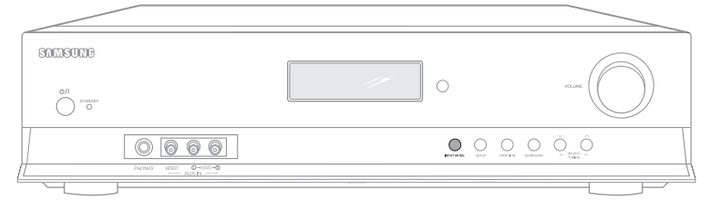
MAIN UNIT

Press **FUNCTION** button.

• Each time you press this button, **FM → AM → 5. 1 MULTI CH → CD → DVD → SAT → VCR → AUX** will be selected in turn.

Selecting digital/HDMI/analogue Input

You can listen to sound in 2 channel analogue or Dolby Digital 5.1 channel using this unit.

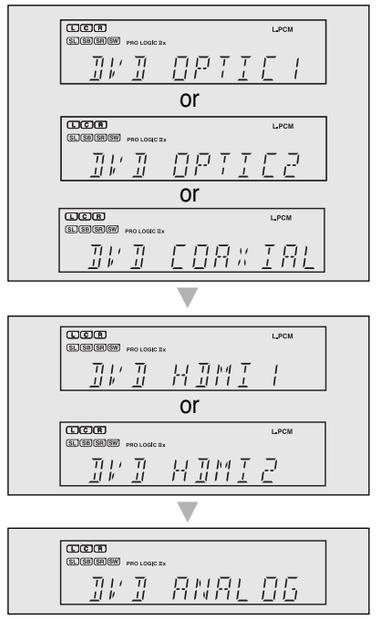


REMOTE CONTROL

Press the **INPUT MODE** button.

• Each time you press this button, input mode changes as follows:

For DVD/SAT function

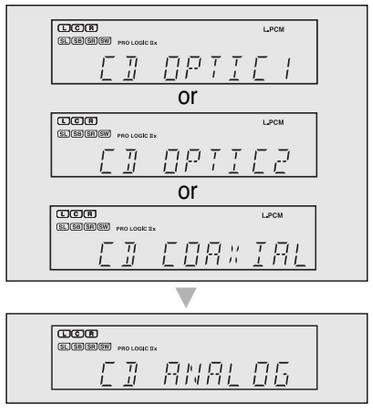


MAIN UNIT

Press the **INPUT MODE** button.

• Each time the button is pressed, input mode changes as follows:

For CD function



Note

• You can change the digital input setting for DVD, SAT and CD functions in the “DIGITAL IN” setup. (See pages 24~25)
• You can change the HDMI input setting for DVD and SAT functions in “HDMI SETUP.” (See pages 26~27)
• You can enjoy Dolby Digital or DTS if you connect the digital audio output jack of an external audio component to the optical/coaxial digital audio input jack on the main unit.

Setting the speaker mode

Signal outputs and frequency response from the speaker will be adjusted according to your speaker configuration and whether certain speakers are used or not.

REMOTE CONTROL

1 Press **SETUP/MENU** button, and then press **ENTER** button.
- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press ◄► button to select the "SPK SETUP", and then press **ENTER** button.

3 Press ◄► button to select the speaker you want.
- Each time you press this button, FRONT → CEN → SURR → SBACK → SUB → CROVR will be selected in turn.

4 Press ▲▼ button to set the mode (Large, Small etc.) for the selected speaker.

5 Repeat steps 1-2 to set the mode for each speaker.

To exit setup mode
- Wait for about 5 seconds or press **SETUP/MENU** button.
  "SETUP OFF" appears on the display and Setup Mode is exited.

Using the SPK SELECT button

1 Press **SPK SELECT** button to select the speaker you want.
- Each time you press this button, FRONT → CEN → SURR → SBACK → SUB → CROVR will be selected in turn.

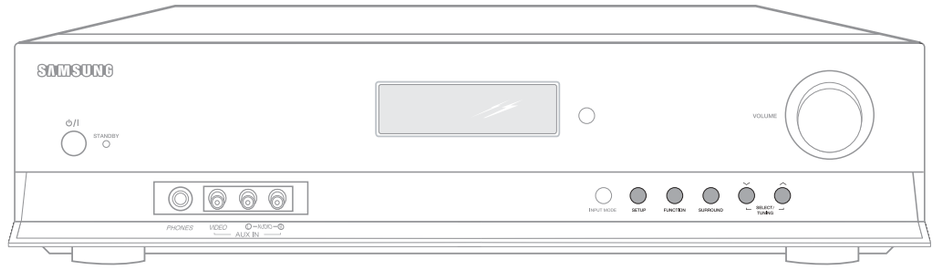
2 Press ▲▼ button to set the mode (Large, Small etc.) for the selected speaker.

3 Repeat steps 1-2 to set the mode for each speaker.

To turn the SUBWOOFER on or off.

Press **SUBWOOFER** button on the remote.
- Each time you press this button, SUB : YES, SUB : NO will be selected in turn.

Note
- If FRONT is set to LARGE, you can select YES or NO for SUB.
- If FRONT is set to SMALL, SUB is automatically set to YES. NO cannot be selected.



MAIN UNIT

1 Press **SETUP** button.
- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press **FUNCTION** button to select the "SPK SETUP".

3 Press **SURROUND** button to select the speaker you want.
- Each time you press this button, FRONT → CEN → SURR → SBACK → SUB → CROVR will be selected in turn.

4 Press **SELECT** (⌄, ⌃) button to set the mode for the selected speaker.

5 Repeat steps 3-4 to adjust each speaker.

To exit setup mode
- Wait for about 5 seconds or press **SETUP** button.
  "SETUP OFF" appears on the display and Setup Mode is exited.

Setting the Speaker

SPEAKER	Possible Settings	Default Setting
FRONT(Front)	LARGE,SMALL	SMALL
CEN(Centre)	LARGE,SMALL,NONE	SMALL
SURR(Surround)	LARGE,SMALL,NONE	SMALL
SBACK (Surround Back)	LARGE,SMALL,NONE	SMALL
SUB(Subwoofer)	YES,NO	YES
CROVR (Crossover Frequency)	60,80,100,120, 150,180,200(Hz)	150Hz

- **LARGE** : Select when using large speakers You can listen to full range sound.
- **SMALL** : Select this when using small speakers
- **NONE** : Select when you use no speaker.
- **YES (subwoofer)** : Select when using the subwoofer speaker.
- **NO (subwoofer)** : Select when not using the subwoofer speaker.
- **CROVR** : Select the crossover frequency for the best bass response in your room.

Setting the speaker listening distance

If the speakers cannot be placed at equal distances from the listening position, you can adjust the delay time of the audio signals from the centre and surround speakers.

REMOTE CONTROL

1 Press **SETUP/MENU** button, and then press **ENTER** button.

- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press ◄► button to select the "DIST SETUP", and then press **ENTER** button.

3 Press ◄► button to select the speaker you want.

- Each time you press this button, F.L → CEN → F.R → S.R → S.B → S.L → S.W will be selected in turn.

4 Press ▲▼ button to set the speaker distance.

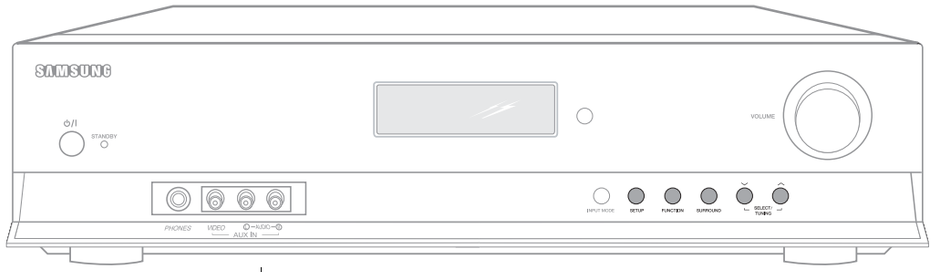
- For F.L, CEN, F.R, S.W, S.R, S.B, S.L Speaker, you can set the distance from the speaker to listening position between 0.3~9.0m in intervals of 0.3m.

To exit setup mode

- Wait for about 5 seconds or press **SETUP/MENU** button.
  "SETUP OFF" appears on the display and Setup Mode is exited.

Note

- If the listening position is beyond the range of speaker distance setup when you place the speaker, set the speaker distance to the maximum.



MAIN UNIT

1 Press **SETUP** button.

- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press **FUNCTION** button to select the "DIST SETUP".

3 Press **SURROUND** button to select the speaker you want.

- Each time you press this button, F.L → CEN → F.R → S.R → S.B→ S.L → S.W will be selected in turn.

4 Press **SELECT**(❯,❮) button to set the speaker distance.

- For F.L, CEN, F.R, S.W, S.R, S.B, S.L Speaker, you can set the distance from the speaker to listening position between 0.3~9.0m in intervals of 0.3m.

To exit setup mode

- Wait for about 5 seconds or press **SETUP** button.
  "SETUP OFF" appears on the display and Setup Mode is exited.

Setting Speaker Distance

Set the distance from the speaker to listening position in intervals of 0.3m.

- **F.L (front left)** : 0.3m ~ 9m
- **CEN (centre)** : 0.3m ~ 9m
- **F.R (front right)** : 0.3m ~ 9m
- **S.R (surround right)** : 0.3m ~ 9m
- **S.B (surround back)** : 0.3m ~ 9m
- **S.L (surround left)** : 0.3m ~ 9m
- **SW (subwoofer)** : 0.3m ~ 9m

Setting digital input

You can set the digital input for a DVD/SAT/CD player to either OPTICAL or COAXIAL.

REMOTE CONTROL

1 Press **SETUP/MENU** button, and then press **ENTER** button.
- "SETUP MODE" appears on the display and goes into Setup Mode.

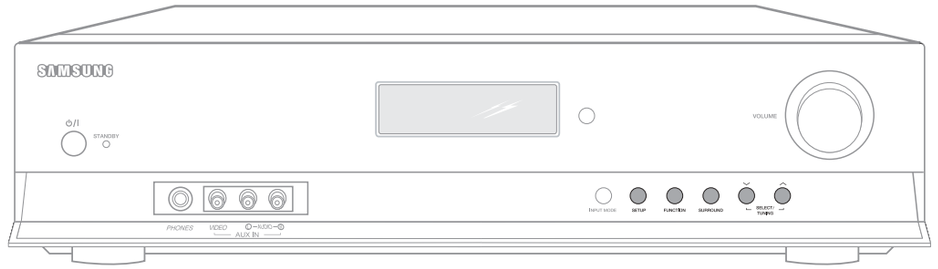
2 Press ◄► button to select the "DIGITAL IN", and then press **ENTER** button.

3 Press ◄► button to select the the CD, DVD or SAT function.
- Each time you press this button, CD → DVD → SAT will be selected in turn.

4 Press ▲▼ button to set the digital input.
Each time you press this button, COAXIAL → OPTICAL2 → OPTICAL1 will be selected in turn.

To exit setup mode

- Wait for about 5 seconds or press **SETUP/MENU** button.
"SETUP OFF" appears on the display and Setup Mode is exited.



MAIN UNIT

1 Press **SETUP** button.
- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press **FUNCTION** button to select the "DIGITAL IN".

3 Press **SURROUND** button to select the CD, DVD or SAT function.
- Each time you press this button, CD → DVD → SAT will be selected in turn.

4 Press **SELECT**(❯, ❮) button to set the digital input.
- Each time you press this button, COAXIAL → OPTICAL2 → OPTICAL1 will be selected in turn.

To exit setup mode

- Wait for about 5 seconds or press **SETUP** button.
"SETUP OFF" appears on the display and the unit Setup Mode is exited.

Note

- You can select only one digital input for each function.
Example) If you have selected COAXIAL for the CD function, you cannot select COAXIAL for the DVD or SAT function.

Function	Digital input
DVD	OPTICAL1
SAT	OPTICAL2
CD	COAXIAL

Setting HDMI input

You can set the HDMI input for a DVD/SAT player to either HDMI 1 or HDMI 2.

REMOTE CONTROL

1 Press **SETUP/MENU** button, and then press **ENTER** button.
- "SETUP MODE" appears on the display and goes into Setup Mode.

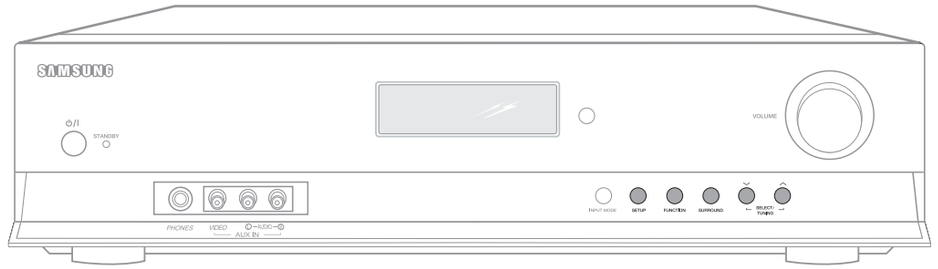
2 Press ◄► button to select the "HDMI SETUP", and then press **ENTER** button.

3 Press ◄► button to select the DVD or SAT function.
- Each time you press this button, DVD → SAT will be selected in turn.

4 Press ▲▼ button to set the HDMI input.
Each time you press this button, HDMI1 → HDMI2 will be selected in turn.

To exit setup mode

- Wait for about 5 seconds or press **SETUP/MENU** button.
"SETUP OFF" appears on the display and Setup Mode is exited.



MAIN UNIT

1 Press **SETUP** button.
- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press **FUNCTION** button to select the "HDMI SETUP".

3 Press **SURROUND** button to select the DVD or SAT function.
- Each time you press this button, DVD → SAT will be selected in turn.

4 Press **SELECT**(⌄, ⌃) button to set the HDMI input.
- Each time you press this button, HDMI1 → HDMI2 will be selected in turn.

To exit setup mode

- Wait for about 5 seconds or press **SETUP** button.
"SETUP OFF" appears on the display and Setup Mode is exited.

Note

- You can select only one HDMI input for each function.
Example) If you have selected HDMI1 for the DVD function, you cannot select HDMI1 for the SAT function.

Function	HDMI input
DVD	HDMI1
SAT	HDMI2

Function	HDMI input
DVD	HDMI2
SAT	HDMI1

Setting HDMI AUDIO

You can set HDMI audio settings.

Before using!

- Press the INPUT MODE button to select HDMI or HDNI2. (see page 19)
- If you select Digital (Optical, Coaxial) or Analogue, the HDMI audio setting will be deactivated.

REMOTE CONTROL

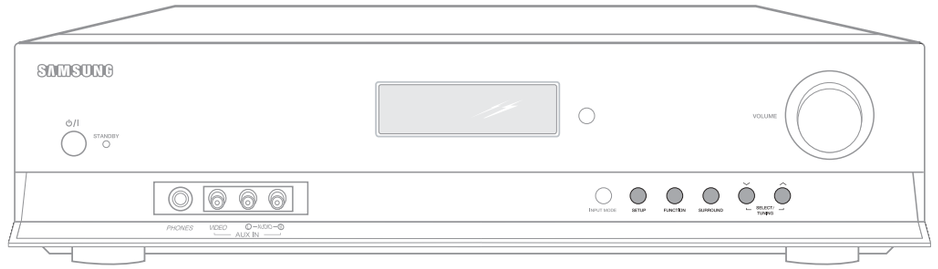
1 Press **SETUP/MENU** button, and then press **ENTER** button.
- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press ◄► button to select the "HDMI AUDIO", and then press **ENTER** button.
"HDMI : AVR" appears on the display.

3 Press ▲▼ button to set the HDMI audio.
- Each time you press this button, HDMI : AVR → HDMI : TV will be selected in turn.

To exit setup mode

- Wait for about 5 seconds or press **SETUP/MENU** button.
"SETUP OFF" appears on the display and Setup Mode is exited.



MAIN UNIT

1 Press **SETUP** button.
- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press **FUNCTION** button to select the "HDMI SETUP".

3 Press **SURROUND** button.
- "HDMI : AVR" appears on the display.

4 Press **SELECT**(⌄,⌃) button to set the HDMI audio.
- Each time you press this button, HDMI : AVR → HDMI : TV will be selected in turn.

To exit setup mode

- Wait for about 5 seconds or press **SETUP** button.
"SETUP OFF" appears on the display and Setup Mode is exited.

Setting HDMI AUDIO

- AVR : Audio is played on this product.
- TV : Audio is played on a TV connected to the HDMI OUT jack and no audio is played on this product.

Note

- This function is available when both video input and output are all HDMI.
- HDMI AUDIO setting is available only when the HDMI output is connected to a TV.
- If you couldn't hear sound from the TV, you should change the HDMI audio output setting for DVD PLAYER and SAT to PCM.

Setting DRC (Dynamic Range Compression)

You can use this function to enjoy Dolby Digital sound when watching movies at low volume at night.

REMOTE CONTROL

1 Press **SETUP/MENU** button, and then press **ENTER** button.
- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press ◄► button to select the "DRC", and then press **ENTER** button.
"DRC:STD" appears on the display.

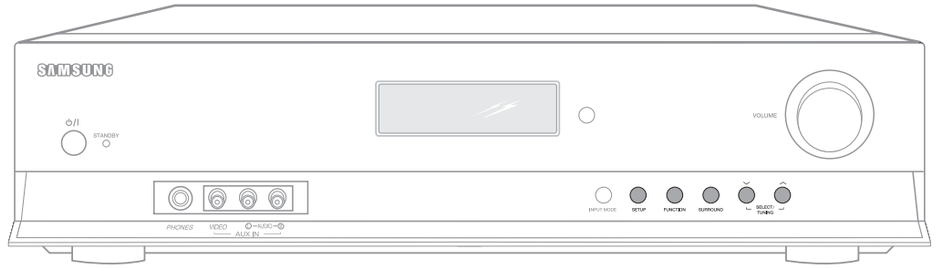
3 Press ▲▼ button to set the DRC.
- Each time you press this button, DRC : STD → DRC : MAX → DRC : MIN will be selected in turn.

To exit setup mode

- Wait for about 5 seconds or press **SETUP/MENU** button.
"SETUP OFF" appears on the display and Setup Mode is exited.

Using the DRC button

Press **DRC** button.
- Each time you press this button, DRC : STD → DRC : MAX → DRC : MIN will be selected in turn.



MAIN UNIT

1 Press **SETUP** button.
- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press **FUNCTION** button to select the "DRC SETUP".

3 Press **SURROUND** button.
- "DRC : STD" appears on the display .

4 Press **SELECT**(∨, ∧) button to set DRC.
- Each time you press this button, DRC : STD → DRC : MAX → DRC : MIN will be selected in turn.

To exit setup mode

- Wait for about 5 seconds or press **SETUP** button.
"SETUP OFF" appears on the display and the unit Setup Mode is exited.

Setting DRC

- **STD** : Sets DRC effect to standard.
- **MAX** : Sets DRC effect to maximum.
- **MIN** : Sets DRC effect to minimum.

Test tone

Use test tone to check the speaker connection status or level.

To automatically output test tone

REMOTE CONTROL

1 Press **SETUP/MENU** button, and then press **ENTER** button.

- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press ◄► button to select the "TEST-T AUTO", and then press **ENTER** button.

Test signal will be automatically output as follows; F.L → CEN → F.R → S.R → S.B → S.L → S.W .

- During test signal output, press ▲▼ button to adjust the speaker output level from -10 to +10 dB by 1 step.

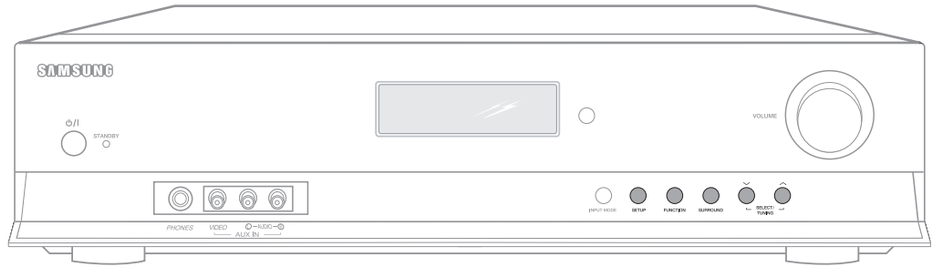
To exit setup mode

- Press **SETUP/MENU** button once time.
  "SETUP OFF" appears on the display and test tone stops.

Using the Test Tone button

Press **TEST TONE** button.

- Test signal will be automatically output as follows; F.L → CEN → F.R → S.R → S.B → S.L → S.W.
- During test tone output, press ▲▼ button to adjust the speaker output level from -10 to +10 dB by 1 step.



MAIN UNIT

1 Press **SETUP** button.

- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press **FUNCTION** button to select the "TEST-T AUTO".

3 Press **SURROUND** button.

- Test signal will be automatically output as follows; F.L → CEN → F.R → S.R → S.B → S.L → S.W .
- During test signal output, press **SELECT** (∨, ∧) button to adjust the speaker output level from -10 to +10 dB by 1 step.

To stop test tone

- Press **SETUP** button once time.
  "SETUP OFF" appears on the display and test tone stops.

Test tone(cont'd)

Use test tone to check the speaker connection status or level.

To Manually Output Test Tone

REMOTE CONTROL

1 Press **SETUP/MENU** button, and then press **ENTER** button.

• "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press ◄► button to select the "TEST-T MANU", and then press **ENTER** button.

• You can adjust the speaker output level from -10 to +10dB by 1 step.

• Each time you press ◄► button, F.L → CEN → F.R → S.R → S.B → S.L → S.W will be selected in turn.

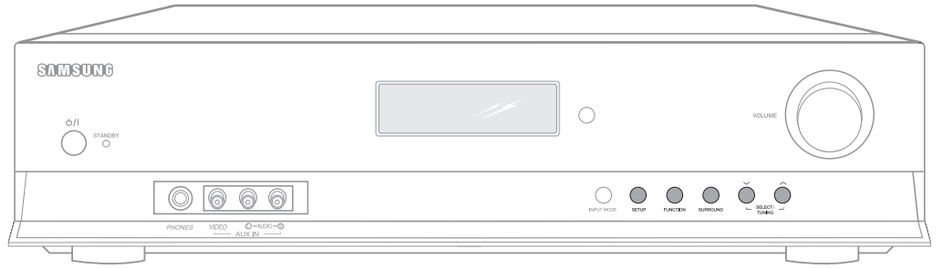
3 Press ▲▼ button to set the test tone as you want.

• You can adjust the speaker output level from -10 to +10dB by 1 step.

• The sound gets quieter at -10dB and louder at +10dB.

To exit setup mode

• Press **SETUP/MENU** button once time.
"SETUP OFF" appears on the display and test tone stops.



MAIN UNIT

1 Press **SETUP** button.

• "SETUP MODE" appears on the display and the unit goes into Setup Mode.

2 Press **FUNCTION** button to select the "TEST-T MANU".

3 Press **SURROUND** button.

• Each time you press this button, F.L → CEN → F.R → S.R → S.B → S.L → S.W will be selected in turn.

4 Press **SELECT**(∨, ∧) button to set the test tone as you want.

• You can adjust the speaker output level from -10 to +10dB by 1 step.

• The sound gets quieter at -10dB and louder at +10dB.

To stop test tone

• Press **SETUP** button 1 time.
"SETUP OFF" appears on the display and test signal stops.

Test Tone Output

- **F.L (front left)** : -10 ~ +10dB
- **CEN (centre)** : -10 ~ +10dB
- **F.R (front right)** : -10 ~ +10dB
- **S.R (surround right)** : -10 ~ +10dB
- **S.B (surround back)** : -10 ~ +10dB
- **S.L (surround left)** : -10 ~ +10dB
- **S.W (subwoofer)** : -10 ~ +10dB

Setting speaker level

You can set the balance and level of speakers.

REMOTE CONTROL

1 Press **SETUP/MENU** button, and then press **ENTER** button.
- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press ◄► button to select the "LEVEL SETUP", and then press **ENTER** button.

3 Press ◄► button to select the speaker you want.
- Each time you press ◄► button, F.L → CEN → F.R → S.R → S.B → S.L → S.W will be selected in turn.

4 Press ▲▼ button to set the speaker mode.
- You can adjust it from -10 to +10dB by 1 step.
- The sound gets smaller at -10dB and louder at +10dB.

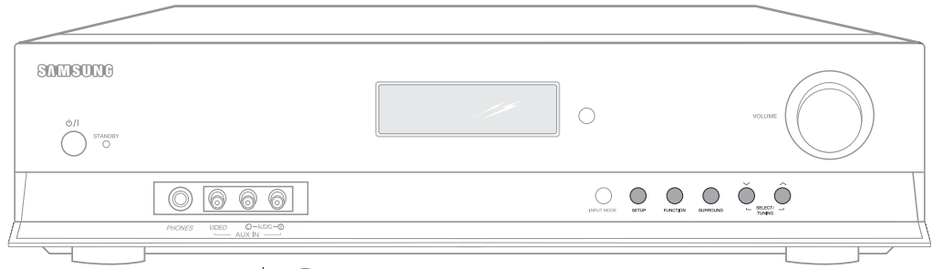
To exit setup mode

- Wait for about 5 seconds or press **SETUP/MENU** button.
  "SETUP OFF" appears on the display and Setup Mode is exited.

Using the SPK LEVEL button

1 Press **SPK LEVEL** button to select the speaker you want.
- Each time you press this button, F.L → CEN → F.R → S.R → S.B → S.L → S.W → SPK LVL OFF will be selected in turn.

2 Press ▲▼ button to set the speaker level you want.
- You can adjust it from -10 to +10dB by 1 step.
- The sound gets quieter at -10dB and louder at +10dB.



MAIN UNIT

1 Press **SETUP** button.
- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press **FUNCTION** button to select the "LEVEL SETUP".

3 Press **SURROUND** button.
- Each time you press this button, F.L → CEN → F.R → S.R → S.B → S.L → S.W will be selected in turn.

4 Press **SELECT**(˅,˄) button to set the speaker level you want.
- You can adjust it from -10 to +10dB by 1 step.
- The sound gets smaller at -10dB and louder at +10dB.

To exit setup mode

- Wait for about 5 seconds or press **SETUP** button.
  "SETUP OFF" appears on the display and exits Setup Menu.

Setting Speaker Level

- **F.L (front left)** : -10 ~ +10dB
- **CEN (centre)** : -10 ~ +10dB
- **F.R (front right)** : -10 ~ +10dB
- **S.R (surround right)** : -10 ~ +10dB
- **S.B (surround back)** : -10 ~ +10dB
- **S.L (surround left)** : -10 ~ +10dB
- **S.W (subwoofer)** : -10 ~ +10dB

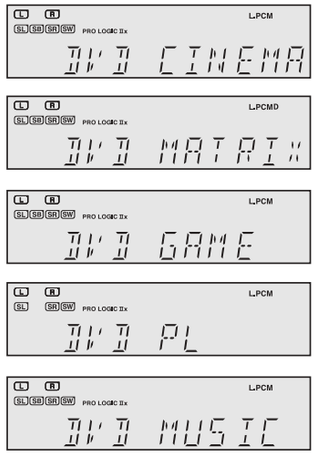
Dolby Pro Logic IIx mode

This mode provides 6.1 channel sound from 2 channel sources

REMOTE CONTROL

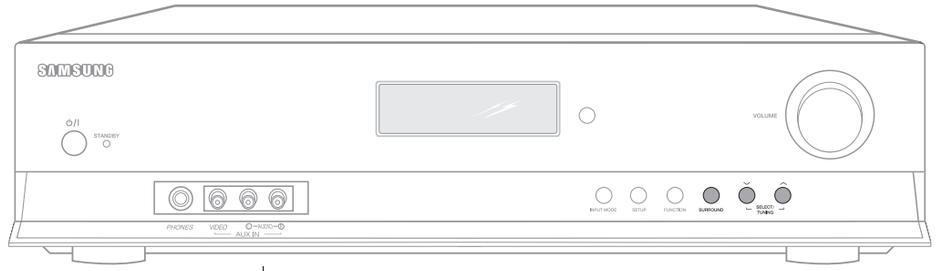
Press **PLIIx MODE** button.

- Each time you press this button, CINEMA → MATRIX → GAME → PL → MUSIC will be selected in turn.



To exit setup mode

- Wait for about 5 seconds.



MAIN UNIT

1 Press **SURROUND** button to select “DPLIIx” mode.

- Each time you press this button, DPLIIx → NEO:6 → SFE → STEREO will be selected in turn.

2 Press **SELECT(⌄, ⌃)** button.

- Each time you press **SELECT (⌃)** button, CINEMA → MATRIX → GAME → PL → MUSIC will be selected in turn.
- Each time you press **SELECT (⌄)** button, MUSIC → PL → GAME → MATRIX → CINEMA will be selected in turn.

To exit setup mode

- Wait for about 5 seconds.

Dolby Pro Logic IIx mode

- **MUSIC** : Provides 6.1 channel surround sound to digital, analogue or existing stereo sources such as CD, TAPE, FM, TV and stereo VCR.
- **CINEMA** : Adds realism to the movie soundtrack.
- **MATRIX** : You will hear 6.1 channel surround sound.
- **GAME** : Enhances the excitement of the game's sound.
- **PL** : You will experience a surround effect with just the front left and right speakers.

Note

- You cannot use Dolby Pro Logic IIx mode for multi channel signals such as Dolby Digital and DTS.
- Pro Logic works only for PCM audio signals with sampling frequencies of 32KHz, 44KHz or 48KHz.
- Sound will not be output from surround back speaker if PCM audio signal is mono.

Setting Dolby Pro Logic IIx effect

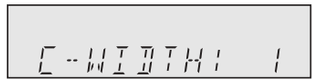
This function works only in Dolby **PRO LOGIC IIx MUSIC** Mode.

REMOTE CONTROL

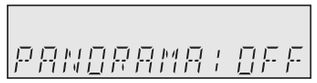
1 Press **SETUP/MENU** button, and then press **ENTER** button.
- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press ◄► button to select the " DOLBY PL IIx MODE", and then press **ENTER** button.

3 Press ◄► button.
- Each time you press this button, C-WIDTH → DIMENSION → PANORAMA will be selected in turn.



4 Press ▲▼ button to set the Dolby Pro Logic IIx effect you want.



To exit setup mode

- Wait for about 5 seconds or press **SETUP/MENU** button.
  "SETUP OFF" appears on the display and Setup Mode is exited.

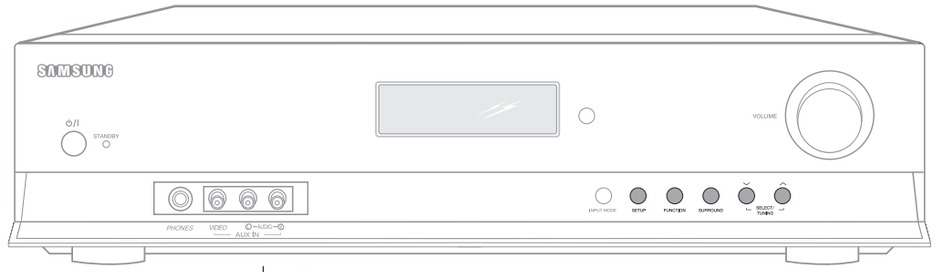
Using the DOLBY PL IIx EFFECT button

1 Press DOLBY PL IIx **MODE** button to select 'MUSIC' Mode.

2 Press DOLBY PL IIx **EFFECT** button.
- Each time you press this button, C-WIDTH → DIMENSION → PANORAMA will be selected in turn.

3 Press ▲▼ button to select Dolby Pro Logic IIx effect you want.

- C-WIDTH : You can set from 0 to 7.
- DIMENSION : You can set from -7 to +7.
- PANORAMA : You can set it ON or OFF.



MAIN UNIT

1 Press **SETUP** button.
- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press **FUNCTION** button to select the "DPLIIx MODE".

3 Press **SURROUND** button.
- Each time you press this button, C-WIDTH → DIMENSION → PANORAMA will be selected in turn.

4 Press **SELECT**(∨, ∧) button to set the Dolby Pro Logic IIx effect you want.

To exit setup mode

- Wait for about 5 seconds or press **SETUP** button.
  "SETUP OFF" appears on the display and Setup Mode is exited.

Dolby Pro Logic IIx effect

- **C-WIDTH** : This sets the width of the centre image. The higher the setting, the less sound comes from the centre speaker.
- **DIMENSION** : Incrementally adjusts the sound field (DSP)from the front or surround.
- **PANORAMA** : This mode extends the front stereo image to include the surround speakers for an exciting "wraparound" effect with side wall imaging.

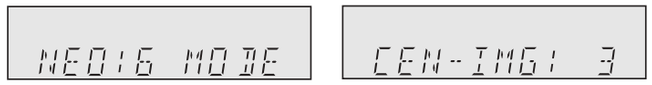
NEO:6 mode

You can play back 2 channel sound over 6.1 channel when enjoying music or a movie.

REMOTE CONTROL

Press **NEO:6 MODE** button.

• Each time you press this button, MUSIC → CINEMA will be selected in turn.



To set sound image of centre speaker

If TV (or screen) is installed high on a wall, you can raise the sound image of the centre speaker to compensate.

1 Press **SETUP/MENU** button, and then press **ENTER** button.

• "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press ◄► button to select the "NEO:6 MODE", and then press **ENTER** button.

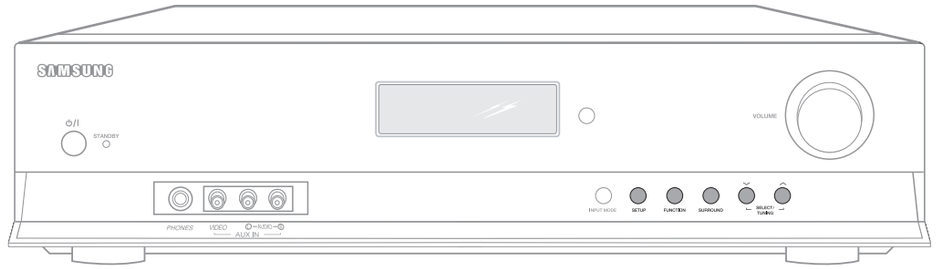
"CEN : IMG : 2" appears on the display.

3 Press ▲▼ button to set the sound image you want.

• You can set the sound image from 0 to 5.

To exit setup mode

• Wait for about 5 seconds or press **SETUP/MENU** button.
"SETUP OFF" appears on the display and Setup Mode is exited.



MAIN UNIT

1 Press **SURROUND** button briefly to select "NEO:6" mode.

• Each time you press this button, DPLIIx → NEO:6 → SFE → STEREO will be selected in turn.

2 Press **SELECT**(⌄, ⌃) button.

• Each time you press this button, MUSIC → CINEMA will be selected in turn.

To set sound image of centre speaker

If TV (or screen) is installed high on a wall, you can raise the sound image of the centre speaker to compensate.

1 Press **SETUP** button.

• "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press **FUNCTION** button to select the "NEO:6 mode".

3 Press **SURROUND** button.

• "CEN : IMG : 2" appears on the display.

4 Press **SELECT**(⌄, ⌃) button to set the sound image you want.

• You can set the sound image from 0 to 5.

To exit setup mode

• Wait for about 5 seconds or press **SETUP** button.
"SETUP OFF" appears on the display and Setup Mode is exited.

NEO : 6 Mode

This mode decodes 2 channel signals to high precision digital matrix decoder.
DTS NEO:6 decoder discretes 2 channel sound to discrete 6.1 channel sound.

- MUSIC : NEO:6 MUSIC mode is optimized for music playback
- CINEMA : NEO:6 CINEMA mode is optimized for movie playback.

Note

- NEO:6 mode can be used with DTS and Dolby Digital multi channel signals.
- Pro Logic works only for PCM audio signals with sampling frequency of 32KHz, 44KHz or 48KHz.

Note

- You can use this function to set the sound image of centre speaker only via the main unit.

Setting EX/ES mode

This mode enable you to listen to 6.1 channel surround from Dolby Digital-EX and DTS-ES sources.
This function works when a Dolby Digital 5.1 channel source is input, and does not work with LPCM and Dolby Digital 2 channel sources.

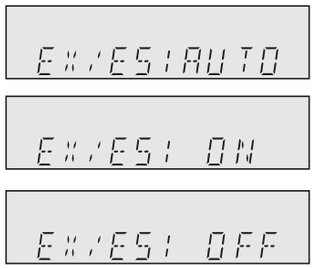
REMOTE CONTROL

1 Press **SETUP/MENU** button, and then press **ENTER** button.
- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press ◄► button to select the "EX/ES SETUP", and then press **ENTER** button.

"EX/ES : AUTO" appears on the display.

3 Press ▲▼ button to set the EX/ES you want.
- Each time you press this button, EX/ES : AUTO → EX/ES : ON → EX/ES : OFF will be selected in turn.

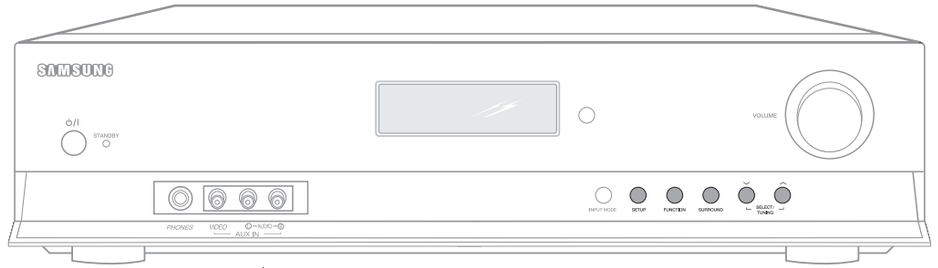


To exit setup mode

- Wait for about 5 seconds or press **SETUP/MENU** button.
  "SETUP OFF" appears on the display and Setup Mode is exited.

Using the EX/ES button

Press **EX/ES** button.
- Each time you press this button, EX/ES : AUTO → EX/ES : ON → EX/ES : OFF will be selected in turn.



MAIN UNIT

1 Press **SETUP** button.
- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press **FUNCTION** button to select the "EX/ES SETUP".

3 Press **SURROUND** button.
- Each time you press this button, EX/ES : AUTO → EX/ES : ON → EX/ES : OFF will be selected in turn.

To exit setup mode

- Wait for about 5 seconds or press **SETUP** button.
  "SETUP OFF" appears on the display and Setup Mode is exited.

EX/ES Mode

- **AUTO** : 6.1 channel sound will be played back at 6.1 channel and 5.1 channel sound will be output as 5.1 channel.
- **ON** : 5.1 channel sound will be converted to and output as 6.1 channel.
- **OFF** : 6.1 channel sound will be converted to and output as 5.1 channel.

Dolby Digital - EX

Movie sound track encoded with Dolby Digital EX can play back the surround back channel added during program mixing. Surround back channel provides fine image, in-depth and realistic feeling.

Note
- You cannot use Dolby Digital-EX in the system without Surround Back speaker.
- You need to set it to EX/ES Mode when playing back disc encoded to Dolby Digital-EX in 6.1 channel.
- Some discs encoded with Dolby Digital-EX do not contain identification signal. In this case, set EX/ES to ON.

DTS-ES (Discrete 6.1, Matrix 6.1)

Surround back channel is added to DTS 5.1 channel, improving the sense of direction and space for sound. Since DTS-ES decoder is built-in in the main unit, you can play back the disc encoded with DTS-ES Discrete and DTS-ES Matrix. DTS-ES Discrete 6.1 can record the sound of all channels including surround back channel digitally and play back the recorded sound as they are.

Note
- You cannot use DTS-ES in the system without surround back speaker.

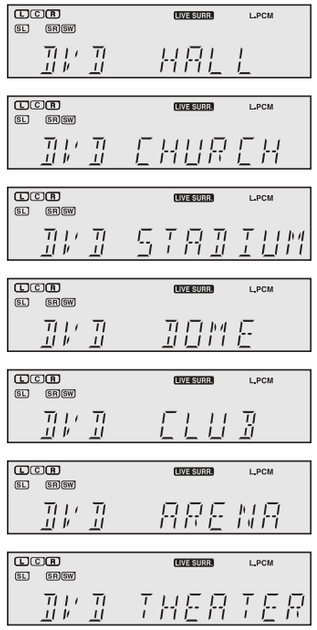
SFE mode

The SFE (Sound Field Effect) function uses 7 different DSP sound field effects to digitally simulate actual music environments such as concert halls or cinemas.

REMOTE CONTROL

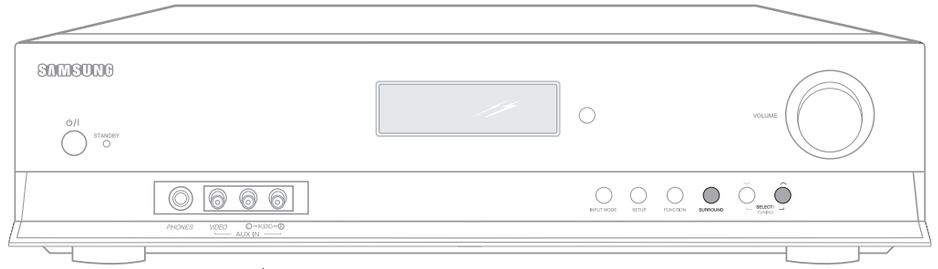
Press **SFE MODE** button.

- Each time you press this button, HALL → THEATER → ARENA → CLUB → DOME → STADIUM → CHURCH will be selected in turn.



To exit setup mode

- Wait for about 5 seconds.



MAIN UNIT

1 Press **SURROUND** button to select 'SFE' Mode.

- Each time you press this button, DPLIIx → NEO:6 → SFE → STEREO will be selected in turn.

2 Press **SELECT**(∨, ∧) button.

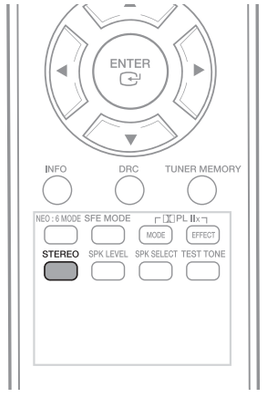
- Each time you press Select (∧) button, HALL → THEATER → ARENA → CLUB → DOME → STADIUM → CHURCH will be selected in turn
- Each time you press Select (∨) button, CHURCH → STADIUM → DOME → CLUB → ARENA → THEATER → HALL will be selected in turn.

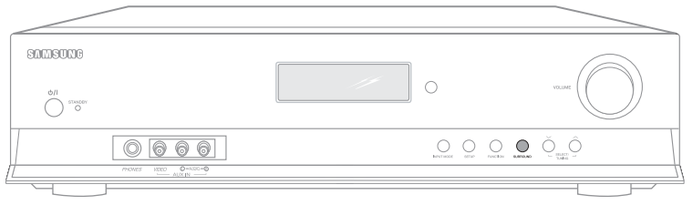
To exit setup mode

- Wait for about 5 seconds.

Stereo mode

You can select this mode when listening to sound through the front left and right speakers and subwoofer.

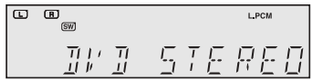




REMOTE CONTROL

Press **STEREO** button.

• "STEREO" appears in the display and Stereo Mode is selected.



To exit setup mode

• Wait for about 5 seconds.

MAIN UNIT

Press **SURROUND** button to select 'STEREO'.

Each time you press this button, DPLIIx → NEO:6 → SFE → STEREO will be selected in turn.

To exit setup mode

• Wait for about 5 seconds.

For Surround Mode and Input Signal

o = active, – = inactive

Surround Mode	Input Signal	Decoding	Output Channel					Display Information	
			L/R	C	SL SR	SB	SubW	Display Signal Format	Channel Status
DOLBY (MUSIC, CINEMA, MATRIX, GAME, PRO LOGIC)	Dolby D Surr. EX	Dolby Digital 5.1	o	o	o	–	o	DIGITAL	L, C, R, SL, SR, SB, SW
	Dolby D (5.1ch)	Dolby Digital 5.1	o	o	o	–	o	DIGITAL	L, C, R, SL, SR, SW
	Dolby D (2ch)	Pro Logic II x	o	o	o	o	o	DIGITAL	L, C, R, SL, SR, SB, SW
	Dolby D (2ch Surr)	Pro Logic II x	o	o	o	o	o	DIGITAL	L, C, R, SL, SR, SB, SW
	L.PCM (Audio)	Pro Logic II x	o	o	o	o	o	L.PCM	L, C, R, SL, SR, SB, SW
	Analog	Pro Logic II x	o	o	o	o	o	ANALOGUE	L, C, R, SL, SR, SB, SW
NEO:6 (MUSIC, CINEMA)	L.PCM (Audio)	Neo:6	o	o	o	o	–	L.PCM	L, C, R, SL, SR, SB, SW
	Analog	Neo:6	o	o	o	o	–	ANALOGUE	L, C, R, SL, SR, SB, SW
	Dolby D (2ch)	Neo:6	o	o	o	o	–	DIGITAL	L, C, R, SL, SR, SB, SW
	Dolby D (2ch Surr)	Neo:6	o	o	o	o	–	DIGITAL	L, C, R, SL, SR, SB, SW
SFE	Dolby D (2ch)	DD+SFE	o	o	o	o	o	DIGITAL	L, C, R, SL, SR, SW
	Dolby D (2ch Surr)	DD+SFE	o	o	o	o	o	DIGITAL	L, C, R, SL, SR, SW
	L.PCM (Audio)	SFE	o	o	o	o	o	L.PCM	L, C, R, SL, SR, SW
	Analog	SFE	o	o	o	o	o	ANALOGUE	L, C, R, SL, SR, SW
EX/ES	Dolby D Surr. EX	Dolby Digital EX	o	o	o	o	o	DIGITAL	L, C, R, SL, SR, SB, SW
	Dolby D (5.1ch)	Dolby Digital EX	o	o	o	o	o	DIGITAL	L, C, R, SL, SR, SB, SW
	DTS-ES	DTS-ES	o	o	o	o	o	dts, ES	L, C, R, SL, SR, SB, SW
	DTS (5.1ch)	DTS-ES	o	o	o	o	o	dts	L, C, R, SL, SR, SB, SW
STEREO	Dolby D (2ch)	Stereo	o	–	–	–	–	DIGITAL	L, R, SW
	Dolby D (2ch Surr)	Stereo	o	–	–	–	–	DIGITAL	L, R, SW
	L.PCM (Audio)	Stereo	o	–	–	–	–	L.PCM	L, R, SW
	L.PCM 96KHz	Stereo	o	–	–	–	–	L.PCM	L, R, SW
	Analog	Stereo	o	–	–	–	–	ANALOGUE	L, R, SW

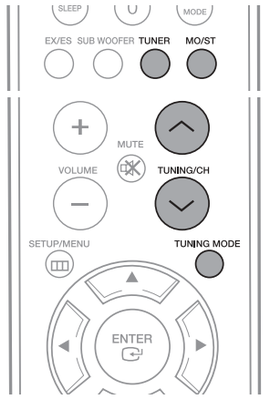
L/R : front speaker (left/right) **C** : centre speaker **SL/SR** : surround speaker (left/right) **SB** : surround back speaker **SW** : subwoofer

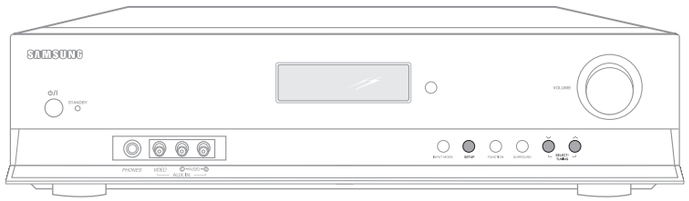
Note

• Channel status displays are dependent on the speaker configuration.
• SFE mode works with 2-ch signals.

Listening to radio

You can listen to the chosen band (FM, AM) by using either automatic or manual tuning.





REMOTE CONTROL

1 Press **TUNER** button.

- Each time you press this button, FM → AM will be repetitively selected.

2 Selected frequency.

- Automatic tuning 1 :
  1) Press **TUNING MODE** button to select PRESET.
  2) Press **TUNING/CH (∨, ∧)** button to select the preset frequency.
- Automatic tuning 2 :
  1) Press **TUNING MODE** button to select MANUAL
  2) Press and hold **TUNING/CH (∨, ∧)** button to automatically tune in frequency.
- Manual tuning :
  1) Press **TUNING MODE** button to select MANUAL.
  2) Press **TUNING/CH (∨, ∧)** button briefly to increase or decrease the frequency step by step.

MAIN UNIT

1 Press **FUNCTION** button to select FM or AM.

2 Select the frequency.

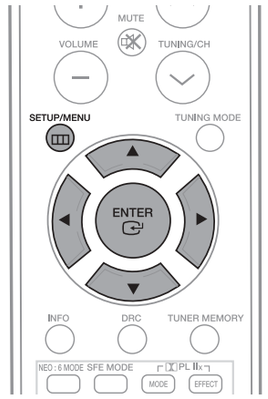
- Automatic tuning :
  Press and hold **TUNING(∨, ∧)** button to automatically tune in frequency.
- Manual tuning :
  Press **TUNING(∨, ∧)** button briefly to increase or decrease the frequency step by step.

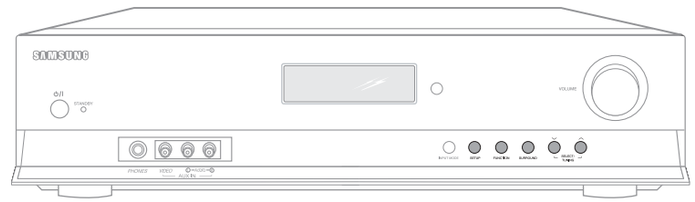
To Listen to mono/stereo

Press **MO/ST** button on the remote.

- Each time you press this button, STEREO → MONO will be selected in turn.
- If you select MONO in the area with weak reception, it will help to reduce noise.
- This function works only with the Remote Control.

Setting Tuner





REMOTE CONTROL

1 Press **SETUP/MENU** button, and then press **ENTER** button

- "SETUP MODE" appears on the display and goes into Setup Mode.

2 Press ◀ ▶ button to select the "TUNER SETUP", and then press **ENTER** button.

3 "TUNER PRESET" appears on the display.

Press ▲▼ button to set the MANUAL or PRESET you want.

- Each time you press this button, MANUAL → PRESET will be selected in turn.

MAIN UNIT

1 Press **SETUP** button.

2 Press **FUNCTION** button to select the"TUNER SETUP".

3 Press the **SURROUND** button.

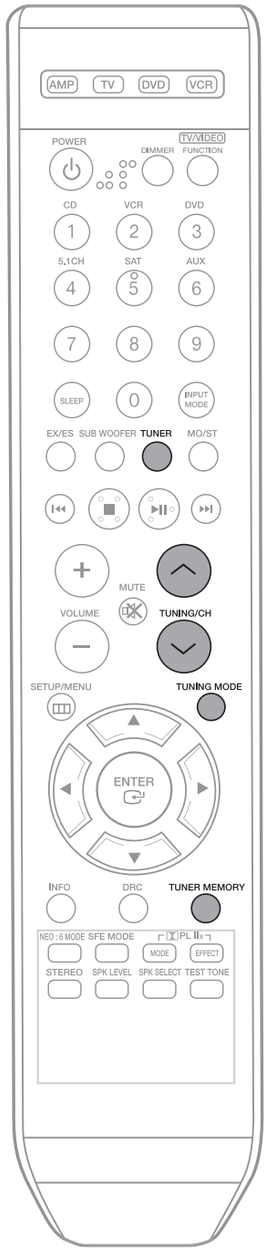
- "TUNER PRESET" appears on the display.

4 Press **Select** (∨, ∧) button.

- Each time you press this button, MANUAL → PRESET will be selected in turn.

Presetting radio Stations

You can preset up to 30 FM and AM stations.

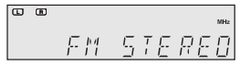


REMOTE CONTROL

E.g.: Setting station FM 89.10 in preset 2 .

1 Press **TUNER** button.

- Each time you press this button, FM → AM will be selected in turn.



2 Press TUNING MODE button to select MANUAL and then press **TUNING/CH(∨, ∧)** button to select 89.10.

- Refer to step 2, page 50, to tune in automatically and manually.

3 Press **TUNER MEMORY** button.

- Tuner number will blink on the display.

4 Press **TUNING/CH(∨, ∧)** button to select preset 2.

- You can select from presets 1 to 30.

5 Press **TUNER MEMORY** button.

- Tuner number will disappear and station 89.10 will be saved in preset 2.

6 To preset other stations, repeat steps 2 to 5.

To Listen to Preset Station

- Press **TUNING MODE** button of the remote control to select the PRESET and press **TUNING/CH (∨, ∧)** button.

Convenient functions

Sleep timer function

You can set the time that this unit will shut itself off.

REMOTE CONTROL

Press the **SLEEP** button.

- SLEEP : OFF → 15 → 30 → 45 → 60 → 90 → 120 M (MIN) will be selected in turn.

To check sleep timer

Press **SLEEP** button.

- The remaining time before this unit will shut itself off is shown on the display.
- Pressing the button again changes the sleep time from what you set previously.

To cancel sleep timer

- Press **SLEEP** button until “SLEEP : OFF” appears on the display.

Mute function

This function is useful when answering a doorbell or telephone call.

REMOTE CONTROL

Press the **MUTE** button.

- **MUTE** appears on the display.

To output sound again

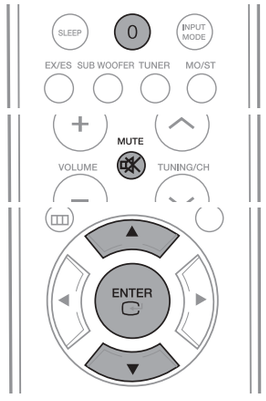
Press **MUTE** button again.

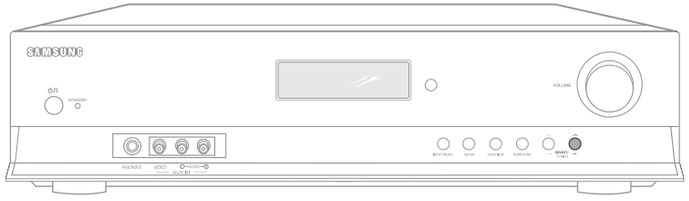
- MUTE will disappear and sound will output.

Note

- SLEEP, Mute and the Adjust Display function can only be operated with the remote control.

Convenient functions (cont'd)





Reset function

REMOTE CONTROL

1 Press the **MUTE** button.
- **MUTE** appears on the display.

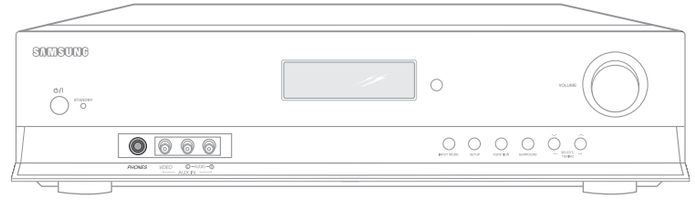
2 Press "**0**" button five times and then press **ENTER** button.
- "INITIAL : YES" appears on the display.

3 Press ▲▼ buttons to select "YES".
- The unit will turn off after 5 seconds.

MAIN UNIT

Turn off the power and hold the **SELECT(^)** button for longer than 5 seconds.
- POWER STANDBY indicator will flash.

Caution!
- Using the RESET function will erase all stored settings.
- Do not use this unless necessary.



Adjust the display

You can adjust the brightness of the display.

REMOTE CONTROL

Press the **DIMMER** button.
- Each time you press this, the brightness changes as follows : DARK → BRIGHT.

Using headphone

Use headphones (not supplied) for private listening pleasure.

Connect the headphone to the headphone jack and listen to music.

Note
- Do not turn the volume up too high when you use headphones as It may damage your hearing.
- In the 5.1 channel mode, if you connect headphones, the "NOT IN USE" message is displayed and sound cannot be heard through the headphones.

Operating your TV with the remote control

1 Press **TV** button to set the remote to TV mode.

2 Press **POWER** button to turn on the TV.

3 Point the remote control toward the TV.

4 While holding down **POWER** button, enter the code corresponding to your brand of TV.

- If the code matches the TV's code, the TV will be turned off.
- If there is more than one code listed for your TV in the table, enter one at a time to determine which code works.

5 If TV is turned on or off when you press the power button of the remote control, the setting is completed.

- You can use the TV POWER, VOLUME, CHANNEL, MENU and Numeric buttons (0~9).

Note

- The remote control may not work on some brands of TVs. Also, some operations may not be possible depending on your brand of TV.
- The remote control will work with Samsung TVs by default.

TV Brand Code List

Brand	Code Number	Brand	Code Number	Brand	Code Number
ADMIRAL (M.WARDS)	056, 057, 058	LUXMAN	018	SYLVANIA	018, 040, 048, 054, 059, 060, 062
A MARK	001, 015	LXI (SEARS)	019, 054, 056, 059, 060, 062, 063, 065, 071	SYMPHONIC	061, 095, 096
ANAM	001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014	MAGNAVOX	015, 017, 018, 048, 054, 059, 060, 062, 072, 089	TATUNG	006
				TECHWOOD	018
AOC	001, 018, 040, 048	MARANTZ	040, 054	TEKNIKA	003, 015, 018, 025
BELL & HOWELL (M.WARDS)	057, 058, 081	MATSUI	054	TMK	018, 040
BROCSONIC	059, 060	MGA	018, 040	TOSHIBA	019, 057, 063, 071, 101 107, 109, 110, 111, 113
CANDLE	018	MITSUBISHI/MGA	018, 040, 054, 059, 060, 075, 101		
CETRONIC	003			VIDTECH	018
CITIZEN	003, 018, 025	MTC	018	VIDECH	059, 060, 069
CINEMA	097	NEC	018, 019, 020, 040, 059, 060	WARDS	015, 017, 018, 040, 048, 054, 060, 064
CLASSIC	003				
CONCERTO	018	NIKEI	003	YAMAHA	018
CONTEC	046	ONKING	003	YORK	040
CORONADO	015	ONWA	003	YUPITERU	003
CRAIG	003, 005, 061, 082, 083, 084	PANASONIC	006, 007, 008, 009, 054, 066, 067, 073, 074	ZENITH	058, 079
				ZONDA	001
CROSLEX	062	PENNEY	018	DONGYANG	003, 054
CROWN	003	PHILCO	003, 015, 017, 018, 048, 054, 059, 062, 069, 090	LOWE	054
CURTIS MATHES	059, 061, 063			FINLUX	054, 109, 114
CXC	003	PHILIPS	015, 017, 018, 040, 048 054, 062, 072, 112, 114, 117, 118	YOKO	054
DAEWOO	002, 003, 004, 015, 016, 017, 018, 019, 020, 021, 022, 023, 024, 025, 026, 027, 028, 029, 030, 032, 034, 035, 036, 040, 048, 059, 090, 099, 100			LOEWE OPTA	054, 114
				PHONOLA	054, 112, 114
		PIONEER	063, 066, 080, 091	RADIOLA	054, 112
		PORTLAND	015, 018, 059	SCHNEIDER	054
		PROTON	040	AKAI	103
		QUASAR	006, 066, 067	GRUNDIG	108, 109, 113, 119, 120, 121
DAYTRON	040	RADIO SHACK	017, 048, 056, 060, 061, 075		
DYNASTY	003			BLAUPUNKT	108
EMERSON	003, 015, 040, 046, 059, 061, 064, 082, 083, 084, 085	RCA/PROSCAN	018, 059, 067, 076, 077 078, 092, 093, 094	SIEMENS	108
				CGE	113
		REALISTIC	003, 019	IMPERIAL	113
FISHER	019, 065, 103	SAMPO	040	MIVAR	113
FUNAI	003	SAMSUNG	000, 015, 016, 017, 040, 043, 046, 047, 048, 049, 054, 059, 060, 098	SABA	114
FUTURETECH	003			BANG&OLUFSEN	114
GENERAL ELECTRIC (GE)	006, 040, 056, 059, 066, 067, 068			BRIONVEGA	114
		SANYO	019, 061, 065, 101, 102, 103, 104	FORMENTI	114
HALL MARK	040			METZ	114
HITACHI	015, 018, 050, 059, 069	SCOTT	003, 040, 060, 061	WEGA	114
INKEL	045	SEARS	015, 018, 019	RADIOMARELLI	114
JC PENNY	056, 059, 067, 086	SHARP	015, 057, 064, 101, 105, 106, 115	SINGER	114
JVC	070			SINUDYNE	114
KTV	059, 061, 087, 088	SIGNATURE 2000 (M.WARDS)	057, 058	TELEFUNKEN	116
KEC	003, 015, 040	SONY	050, 051, 052, 053, 055, 101		
KMC	015				
LG (GOLDSTAR)	001, 015, 016, 017, 037, 038, 039, 040, 041, 042, 043, 044, 054, 086	SOUNDESIGN	003, 040		
		SPECTRICON	001		
		SSS	018		

Operating your DVD (VCR) with the remote control

1 Press **DVD** button to set the remote to DVD mode.

- If you operate VCR, press VCR button to set the remote to VCR mode.

2 Press **POWER** button to turn on the DVD (VCR).

3 Point the remote control toward the DVD (VCR).

4 While holding down **POWER** button, enter the code corresponding to your brand of DVD (VCR).

- If the code matches the DVD (VCR)'s code, the DVD (VCR) will be turned off.
- If there is more than one code listed for your DVD (VCR) in the table, enter one at a time to determine which code works.

5 If DVD (VCR) is turned on or off when you press the power button of the remote controller, the setting is completed.

- You can use DVD (VCR) POWER, VOLUME, PLAY, PAUSE, STOP, SKIP, MENU and Numeric button (0~9).

Note

- The remote control may not work on some brands of DVD (VCR). Also, some operations may not be possible depending on your brand of DVD (VCR).
- The remote control will work with Samsung DVD (VCR) by default.

VCR Brand Code List

Brand	Code Number
ADMIRAL (M.WARDS)	043, 106
AWIA	044, 045, 046
AKAI	088, 089, 090
ANAM	001, 002, 003, 004, 005, 033
AOC	091
AUDIO DYNAMIC	019, 047, 092
BELL & HOWELL (M.WARDS)	048, 093
BROKSONIC	092, 094, 095
CANON	001, 033, 049, 091
CAPEHART	011
CITIZEN	050
CRAIG	050, 072, 096
CRITERION	051
CURTIS MATHES	001, 031, 032, 033, 044, 091
DAEWOO	006, 007, 008, 009, 010, 011, 012, 013, 014, 015, 016, 017, 018, 046, 051, 091
DAYTRON	011
DBX	019, 047, 052, 092
EMERSON	025, 031, 032, 044, 046, 094, 095, 097, 098, 099
FISHER	009, 048, 053, 054, 055, 100
FUNAI	044
GENERAL ELECTRIC (GE)	001, 031, 032, 033, 056, 091
GO VIDEO	059, 060, 061
HARMAN KARDON	019
HITACHI	020, 021, 049, 054, 062, 100
HQ	051
INSTANT REPLAY	001, 033, 049, 091
JCL	001, 033
JCP	025
JC PENNY	047, 048, 052, 062, 091, 092
JVC	001, 033, 047, 052, 063, 064, 065, 092
KENWOOD	047, 050, 052, 092
LG (GOLDSTAR)	019, 020, 021, 022, 023, 024, 025, 026, 027, 028, 029, 030, 050
LXI (SEARS)	020, 025, 044, 048, 050, 053, 054, 055, 062, 100
MAGIN	072
MAGNAVOX	001, 031, 032, 033, 049, 066, 067, 091
MARANTZ	001, 019, 033, 047, 052, 092, 110
MARTA	025, 050
MEI	001, 033
MEMOREX	001, 025, 033, 054, 091, 100
MINOLTA	020, 021, 062
MITSUBISHI/MGA	068, 069, 070, 101, 102
MTC	072
MULTITECH	044, 057, 069
NEC	019, 047, 052, 057, 092
OLYMPIC	049, 091
OPTIMUS	101
ORION	103
PANASONIC	001, 004, 033, 049, 067, 091, 107
PENNEY	019, 020, 072
PENTAX	001, 020, 021, 033, 062
PHILCO	001, 033, 046, 049, 091, 094
PHILIPS	001, 030, 033, 049, 050, 066, 091
PILOT	025
PIONEER	049
PORTLAND	011
QUASAR	001, 033, 049, 067, 091, 107, 108
RICO	036
RCA/PROSCAN	001, 020, 021, 031, 032, 033, 049, 051, 062, 066, 070, 091, 104
REALISTIC	001, 009, 025, 033, 044, 048, 054, 091, 101, 105
SAMSUNG	000, 006, 031, 032, 057, 058, 071, 072, 073, 074, 075, 076, 077, 078, 079, 080, 081
SANYO	008, 009, 046, 048, 050, 054, 058, 093, 100
SANSUI	092
SCOTT	006, 051, 054, 057, 069, 070, 100, 101
SEARS	020, 021, 025
SHARP	043, 105, 106
SINGER	096
SIGNATURE 2000 (M.WARDS)	043, 044, 054, 100, 106
SHINTOM	096
SONY	034, 035, 036, 037, 038, 039, 040, 041, 042, 082, 083, 084, 085, 086
STS	020
SYLVANIA	001, 033, 044, 049, 066, 091
SYMPHONIC	044
TANDY	009
TASHIRO	050
TATUNG	047, 052, 092
TEAC	044, 047, 052, 092
TECHNICS	001, 033, 049, 091
TEKNIKA	001, 025, 033
TOSHIBA	006, 051
TOTEVISION	025, 072
TAEKWANG	087
UNITECH	072
VECTOR RESEARCH	019
VIDEO CONCEPTS	019
VIDEOSONIC	072
WARDS	001, 020, 031, 032, 033, 043, 050, 054, 072, 100, 105, 106, 109
YAMAHA	019, 047, 048, 052, 092,
ZENITH	019, 047, 048, 052, 092

DVD Brand Code List

Brand	Code Number
DENON	003, 032
DOONOON	019
DMTECH	017
FISHER	002
GE	006
HARMAN/KARDON	012
JVC	010, 013
KENWOOD	008
LG	001
MAGNAVOX	004
MITSUBISHI	005, 016
ONKYO	004, 014
OPTIMUS	011
PANASONIC	021
PROSCAN	006
PHILIPS	004, 023
PIONEER	007, 011, 022, 025
RCA	006
SAMSUNG	000, 027
SANYO	002
SONY	015, 020
THETA DIGITAL	011
TOSHIBA	004, 018
YAMAHA	009, 033
ZENITH	004, 024
TAEGWANG	026
PS2	028
X-BOX	029
APEX	030
MARANTZ	031

Before calling for service

Symptom	Check	Remedy
Can't turn it on.	• Is the power cord plugged into the outlet?	• Connect the power plug to the outlet.
It does not work when the button is pressed.	• Is there static electricity in the air?	• Disconnect the power plug and connect it again.
Sound is not produced.	• Are the speakers and external components connected properly? • Is the Mute function on? • Is the volume set to minimum? • Is the speaker setup set incorrectly to NONE?	• Connect them correctly. • Press Mute button to cancel the function. • Adjust the volume. • Refer to pages 20~21 to select LARGE, SMALL or YES.
Picture does not appear when the function is selected.	• Is the external component connected properly?	• Connect them correctly.
Remote controller does not work.	• Are the batteries drained? • Is the distance between remote control and main unit too great?	• Replace with new batteries. • Operate at close distance.
The sound from each device is changed during stereo playback.	• Are the left/right speaker or left/right input/output cables connected properly?	• Check the left/right channel and connect it/them correctly.
Can't receive radio broadcasts.	• Is AM or FM antenna connected properly?	• Connect the antenna correctly. • If the input strength of antenna connector is weak, install the FM antenna in a place with good reception.
There is no sound from surround speakers.	• Is the surround speaker connected properly? • Is SBACK (surround back) incorrectly set to NONE in speaker setup? • Is surround mode selected to stereo?	• Refer to pages 10~11 to connect it properly. • Refer to pages 20~21 to select LARGE or SMALL. • Refer to pages 40~49 to select other Surround Mode.
There is no sound from centre speaker	• Is the centre speaker connected properly? • Is CEN (centre) incorrectly selected to NONE in speaker setup? • Is the surround mode selected to stereo?	• Refer to pages 10~11 to connect it properly. • Refer to pages 20~21 to select LARGE or SMALL. • Refer to pages 40~49 to select other Surround Modes.

Symptom	Check	Remedy
There is no sound from surround back speaker	• Is the surround back speaker connected properly? • Is the SB SPK selected to NONE in Speaker Setup? • Is Surround Mode set to EX/ES?	• Refer to pages 9~10 to connect it properly. • Refer to pages 11~12 to select LARGE or SMALL. • Refer to pages 35~36 to set Surround Mode to EX/ES.
Can't select EX/ES mode.	• Is SB SPK selected to NONE in Speaker Setup? • Is the input signal selected properly?	• Refer to pages 11~12 to select LARGE or SMALL. • Use 5.1 channel external component.
Can't select Dolby Pro Logic IIx mode.	• Is the input signal selected properly?	• Select 2 channel Dolby Digital, PCM, and Analogue input signal.
Can't select NEO:6 mode.	• Is the input signal selected properly?	• Use PCM and Analogue input signal.
There is no sound when playing a DTS encoded DVD.	• Is Digital input selected?	• Check whether digital external component is properly connected and refer to page 24 to select the digital input.

Product protection function

Heat protection

• The protection function will come on if the main unit or power transformer overheats.
"PROTECTION" will appear in the display .
This function will come on :
- If speaker terminal is shorted
- If speaker cable is shorted
If there is no problem when you turn the unit on again after turning it off, PROTECTION mark will disappear on the display and the unit will work properly.
If the cooling fan is out of order, the "PROTECTION" message would be displayed on the display.

Note

• If PROTECTION appears on the display, check whether the speaker terminal is shorted and then turn on the unit

Specifications

GENERAL	Power supply	110-240 V, 50/60 Hz
	Standby power consumption	0.9 W
	Power consumption	100 W
	Weight	4.8 kg
	Dimensions (W x H x D)	353 x 89 x 381 mm
	Operating temperature range	+5 °C~+35 °C
	Operating humidity range	10 %~75 %
FM TUNER	Frequency response	87.50~108.00 MHz
	Usable sensitivity	12 dBf
	S/N ratio	MONO/STEREO 55/55 dB
	Distortion	MONO/STEREO 0.3/0.8 %
	Stereo separation	30 dB
	Tuner output level	1 kHz, 75 kHz Dev
AM TUNER	Frequency response	522~1611 kHz
	S/N ratio	40 dB
	Usable sensitivity	60 dBmV/m (loop antenna)
	Distortion	2 % (MOD:80 %)
AMPLIFIER	Rated output	20 Hz~20 kHz/THD = 10 %
	Front speaker(left+right)	4 Ω 100 W/CH
	Centre speaker	4 Ω 100 W/CH
	Surround speaker(left+right)	4 Ω 100 W/CH
	Surround back	4 Ω 100 W/CH
	Input sensitivity/impedance	450 mV/47 kΩ
	S/N ratio (analogue input)	80 dB
	Separation (1kHz)	60 dB
FREQUENCY RESPONSE	Analogue input	20 Hz~20 kHz(±3 dB)
	Digital input/96kHz PCM	20 Hz ~44 kHz(±3 dB)
VIDEO OUTPUT	TV format	NTSC/PAL
	Input level/impedance	1 Vp-p/75 Ω
	Output level/impedance	1 Vp-p/75 Ω
	Video frequency response	5 Hz to 10 kHz(-3 dB)
	S/N ratio	60 dB

h S/N ratio, distortion, separation and usable sensitivity are based on measurement using AES (Audio Engineering Society) guidelines.

SPEAKERS	Speaker system	Front / Surround / Surround back	Centre	Subwoofer speaker
	Impedance	4 Ω x 5	4 Ω	8 Ω
	Rated input	100 W	100 W	150 W
	Maximum input	200 W	200 W	300 W
	Dimensions (W x H x D)	89 x 150 x 89 mm	198 x 89 x 91 mm	305 x 368 x 381 mm
	Weight	0.65/0.5 Kg	0.77 Kg	12.97 Kg

Contact SAMSUNG WORLD WIDE

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care centre.

Region	Country	Customer Care Center ☎	Web Site
North America	CANADA	1-800-SAMSUNG (7267864)	www.samsung.com/ca
	MEXICO	01-800-SAMSUNG (7267864)	www.samsung.com/mx
	U.S.A	1-800-SAMSUNG (7267864)	www.samsung.com
Latin America	ARGENTINE	0800-333-3733	www.samsung.com/ar
	BRAZIL	0800-124-421	www.samsung.com/br
	CHILE	800-726-7864(SAMSUNG)	www.samsung.com/cl
	COSTA RICA	0-800-507-7267	www.samsung.com/latin
	ECUADOR	1-800-10-7267	www.samsung.com/latin
	EL SALVADOR	800-6225	www.samsung.com/latin
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	JAMAICA	1-800-234-7267	www.samsung.com/latin
	PANAMA	800-7267	www.samsung.com/latin
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	VIETNAM	1 800 588 889	www.samsung.com/vn
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	U.A.E	800SAMSUNG (7267864)	www.samsung.com/mea